2022 Charles W. Davidson College of Engineering Scholars

Isabel Agundis I Mechanical Engineering
Passionate I Adventurous I Determined
Jabil Scholar

1. Why did you choose your major?

My passion for innovation, technology and education is what drove me to choose my major. Since an early age, I was passionate about math and solving problems and I knew that I wanted to make tangible solutions to problems. Mechanical engineers design, analyze, test, manufacture, control, operate, maintain, research, and carry out projects to help everyone live comfortably and effectively. The development of machines, like computers for example, have impacted society in a positive and transformative way. During the COVID-19 pandemic, people around the world relied on the use of computers, work and classes were conducted online, therefore, new opportunities to keep innovating this technology and connecting people using electronic devices is open for all engineers, including myself, who are currently seeking new challenges.

2. Are you involved in any school or community activities?

I have been working at IBM as a Data Center Specialist Co-op over the past nine months. I took the opportunity of working here because I wanted to gain a deeper understanding in computers and get exposed to the development that the tech industry has. I also conduct research at SJSU, my undergraduate research area is in the design and fabrication of a lightweight lower limb exoskeleton for rehabilitation. The opportunity of working alongside Dr. Sharifi and other undergraduate and graduate students has enlightened the path I want to follow in my professional career. I want to continue doing research and gain more knowledge in robotics and its applications.

Another activity I was deeply involved with was Anitech startup as the Product Lead of the company. Over the past year we researched, designed, and developed a K-Tree prototype. This modular and biosafe climbing structure serves for koala bears rehabilitation. Anitech startup won Silicon Valley Innovation Challenge Best Product Innovation in 2021 and actively participated as a 2021-2022 ZinnStarter program startup company. This experience opened my eyes to the variety of opportunities that are available for engineers to innovate and be participants in the growth of a business.

3. What is your dream job?

I am particularly interested in being a participant of developing quantum computing, I believe that this revolutionary technology can enable drastic progression in drug discovery and development, can also bring huge potential to the financial sector, and can hold immense

potential to solve climate change. I often put aside the sorrow and sadness that the pandemic brought to our lives because I am convinced that being a mechanical engineer will enable me to be at the forefront of solving these types of worldwide problems. My education is my long-term investment and I feel excited about all the opportunities that will be available to me right after graduating from college. I look forward to getting myself immersed in the quantum computing field and learning about how a young, motivated, and proactive Hispanic female mechanical engineer can contribute to this modern research field.

4. What advice would you share with your freshman self?

My college journey started at community college, I took a different and more extended path towards getting a bachelor's degree than most of the people. After graduating high school, I had no option to go straight to a four-year university due living in Mexico, where I grew up, and not being aware about the university application process, however, I have done my best to obtain my degree regardless of the situation and how long it takes me. One good advice that I would give Isabel in 2015 is to focus more on the roadmap to transfer that the counselors advised. I spent some time exploring by taking different classes outside of engineering and complaining about how unfair the system was for community college students, and this made me loose concentration in my goal of transferring. Nevertheless, the best part about my college approach was to gain valuable experience in the engineering field and become financially independent, something that I feel proud for accomplishing.

Nico Alfaro I Mechanical Engineering

Tenacious I Thankful I Thoughtful

Coussens Scholar

1. Why did you choose your major?

I had always excelled at math in grade school, and I've always had the itch to create or improve upon things I use in everyday life, so after some online career oriented quizzes and google searching I discovered mechanical engineering and their role in the world. What excited me the most was learning the ability to design using a scientific approach to create something that can perform its task to the highest degree.

2. Are you involved in any school or community activities?

Back home in Salinas, I am involved in Monterey Off Road Cycling Organization, MORCA. It is a group of volunteers who do maintenance, cleanup and improvements in the Fort Ord National Monument, a large public land area with miles of trail network. I am involved because I frequent the space with my family and love being able to keep it maintained for others to enjoy. In addition I have been able to meet like minded individuals from many different backgrounds.

3. What is your dream job?

My dream job would be somewhere in the outdoor sports industry where I am able to work on the design and testing of different kinds of equipment used in outdoor spaces.

4. What advice would you share with your freshman self?

I would advise my younger self to apply what I'm learning in class to projects outside of class as much as possible to be able to understand the importance of what you're learning. I would also suggest networking with other students from all different majors, even outside of engineering, and to network with older engineers from companies you think you'd like to work at and get an idea for what they do to decide if it really is something you'd like to do as a career. Finally, I'd suggest getting involved in a community space that is completely unrelated to school. I've found that when I start to lack motivation for school it is time for a break from all things engineering, to allow my brain some space to breathe and absorb what I'm learning in class.

Jinann Alzaghari I Chemical and Materials Engineering
Proactive I Motivated I Thoughtful
Future of Silicon Valley Graduate Scholar

1. Why did you choose your major?

From a young age, I wanted to follow in my father's footsteps and become an engineer. Throughout my childhood, math and science were always my favorite school subjects. Fast forward to high school, when I first took a chemistry class and fell in love with it. From that point onward, I knew I wanted to be a chemical engineer. This field combines all of the things I'm passionate about and gives me the opportunity to have a significant impact on the communities and society in which I live. Another motivation of mine was to prove that, despite being underestimated and underrepresented as a woman of color in STEM, I had what it takes to successfully become a chemical engineer. My journey thus far has been full of both accomplishments and challenges, and I am grateful for both because they have been wonderful opportunities for my holistic growth.

2. Are you involved in any school or community activities?

Throughout my time at SJSU, I've been involved in both the American Institute of Chemical Engineers (AIChE) and the Muslim Student Association (MSA). Both of these organizations have allowed me to meet amazing people and form long-lasting, meaningful connections with my peers. Moreover, I've been able to improve myself academically, socially, and spiritually and am glad to have prioritized all of these important aspects of my life without having to sacrifice one or the other.

3. What is your dream job?

My dream job is to work as a chemical engineer at a carbon capture company and contribute to the great work that is being done to combat climate change. I am looking forward to working in interdisciplinary teams, with the shared goal and motivation of prioritizing our planet and the health and well-being of the communities around us. I plan to use my research background and work ethic to give 100% of my efforts to this fulfilling and necessary work.

4. What advice would you share with your freshman self?

I would tell my freshman self to slow down and enjoy the little moments throughout college. More specifically, to spend more time with friends and to explore the different places and resources across campus. While its important to do well academically, I often prioritized my

academics over hanging out with friends, and after the beginning of the pandemic I was left with a feeling of wishing I had cherished those moments more. Despite this, I am happy to be attending SJSU in person now and I am more focused on having fun and making long-lasting memories with friends.

Christina Andrade I Industrial & Systems Engineering
Resourceful I Thoughtful I Hardworking
Qualcomm Scholar

1. Why did you choose your major?

I was drawn to human factors and ergonomics (HFE) by this field's potential to improve lives through human-centered design decisions. It's an incredibly important domain in engineering. In the direst of moments, HFE can be the difference between life or death. In high-risk domains such as aerospace, nuclear power, automation, or health care, good human factors can help to prevent fatal errors. HFE can also help to prevent the 'death by a thousand cuts', the tragic pain and suffering that can be caused by a lifetime of poor ergonomic design that contributes to musculoskeletal disorders and chronic pain.

Human factors touches all domains in life. Almost all things, environments, and systems we encounter in everyday life have been designed, engineered, and implemented by humans (though not always optimally for humans). The impact of the design decisions made by others can make our experiences in life pleasant or aggravating, safe or dangerous, and accessible to some while unobtainable to others. I chose HFE because I want to help improve both the most mundane and most critical human interactions with products, environments, and systems, and make our lives safer, more productive, and more satisfying.

2. Are you involved in any school or community activities?

I'm involved in several school and community activities, including serving as Secretary for SJSU's Human Factors and Ergonomics Society Student Chapter, volunteering for Code for San Jose, and working as a lab research assistant on campus.

Acting as Secretary for HFES allows me to help foster community within my cohort of fellow graduate students, provide guidance and mentorship, and to facilitate opportunities for all of us to grow professionally and prepare for our careers through networking, speaker events, and industry tours.

Working as a lab research assistant and volunteering allows me to grow my craft and take the skills and theories I've learned in my courses and apply them to real world applications. Volunteering for Code for San Jose also provides the added benefit of helping to make a difference on meaningful community projects.

3. What is your dream job?

My dream job is to work in civic technology, which enhances the relationship between the people and government with software. I'd love to work for an organization like the United States Digital Service or Code For America, which uses an iterative, community-focused, and data-driven design process to build and improve key community services and programs (e.g.veterans assistance, food assistance, criminal record clearance, etc.) While there is a lot of

attention paid to user research and user interface design in private industry, there is a lot of work to be done in the public sector, where systems and interfaces lie between users and critical, life-changing community and government services.

4. What advice would you share with your freshman self?
My advice for my freshman self would be to take yourself seriously and do not undersell yourself. So much learning happens by doing, and you do not have to be perfect or feel like an expert to get started. Do not hold yourself back because you don't feel ready yet - the truth is you'll never be 100% ready for a job or opportunity, but go after it anyway! You'll learn and grow by challenging yourself and by going after the opportunities you want, whether that's internships, research, or jobs.

Matthew Ard I Mechanical Engineering
Altruistic I Hardworking I Funny
Jabil Scholar

1. Why did you choose your major?
For the first 2 years of my life I lived in an orphanage in China. I could be in a very different place in life right now, but luckily I was adapted and brought to America. At the time it was a very hard transition for me, but as time goes by my gratitude for being adapted only increases. Unfortunately, there are a lot of other people who are not as lucky as me and face many challenges everyday that many of us would never consider being a problem.

Due to climate change many of these problems have increased in magnitude and frequency. I chose engineering because I love science and problem solving, and engineering allows me to use these skills to create real world solutions. More specifically, I chose mechanical engineering because I am most interested in energy-related research, to mitigate the effects of climate change, which mechanical engineers can do a lot of work in.

2. Are you involved in any school or community activities?
I am involved in 3 different communities/organizations at school. I am the coach and treasurer for the Gymnastics club, I was a mechanical engineer and now I am the treasurer for the robotics club, and I am a volunteer at the student pantry.

I chose the robotics club because of the technical experience it could give me and the people that are a part of it. Although I do not want to work in robotics for my career, being a part of this club allowed me to gain technical experience and be a part of a hardworking and driven group of engineers.

I've gotten the opportunity to volunteer for the pantry for the last year. I chose to volunteer because I like helping people out and volunteering at the pantry allows me to help provide food for those who would struggle to get their own.

The gymnastics club is a good opportunity for me to relax a little bit and meet students from other departments of the university.

3. What is your dream job?
There is no specific company or job title that I can think of as my dream job, but I would like to be a leader in the clean energy field to help mitigate the effects of climate change. I am most interested in working with a company who is trying to lower the cost of clean energy technology to make it more accessible for people and competitive to the fossil fuel counterparts. I would like my research to be applicable to the real world and create solutions that people can start implementing soon.

4. What advice would you share with your freshman self?
Time is a very important resource that you should not take for granted. While school may seem like the most important thing right now, and you should work hard at it, it is only going to be a very small portion of your entire life. Keep working hard to achieve your goals, but also take time to enjoy and experience life because what's the point of living if you are only working.

Idreece Barnes I Electrical Engineering
Passionate I Adaptive I Positive
Harry Wong Scholar

1. Why did you choose your major?
Since I was a young child, I've had a strong passion for building things that began with Lego bricks. In high school, I discovered that I had a strong interest in physics. This led me to believe that engineering would provide me with a gratifying experience. As for my specific engineering field, the decision took some consideration. I enjoyed mechanics, but I did not feel that it would pique my interest for years to come. I eventually put together my personal computer and realized that I had no idea how each of the parts worked. The curiosity about the intricate workings of a computer combined with my desire for a physics-based understanding of electricity led me to choose electrical engineering as my major.

2. Are you involved in any school or community activities?
I've been playing the trumpet since I was in fourth grade, and today, I'm part of a big-band jazz group that plays at a variety of venues around the Bay Area. Playing the trumpet is a great way to relax while stimulating the creative side and analytical sides of my mind at the same time. Another activity I'm involved in is track and field, which I have been doing since I was a sophomore in high school. Nowadays, I coach sprints and hurdles for my high school track and field team and join them for workouts, which is a great way to stay fit and healthy, both physically and mentally. I believe that participating in a diverse set of activities apart from academics is important for maintaining a healthy, balanced lifestyle, which will in turn facilitate future success.

3. What is your dream job?

My ideal position would allow me to be involved in the technical aspects of an engineering project while leading the effort at the same time. I'm highly interested in a variety of electrical engineering subfields, such as optics, radio frequency technology and other electromagnetics, and machine learning, so I want a job where I can apply all of those topics technically. I also find gratification in coordinating efforts for an important cause, so a leadership position would likely be a good fit for me, especially if I could still participate in technical aspects of the project.

4. What advice would you share with your freshman self?

Stress less. It doesn't help you do better. Try your best, and be okay with the results. You'll be healthier, happier, and more successful in the long run. In the wise words of Professor David Parent, "You gotta eat right, sleep right, and train right."

Madelyn Beckner I Mechanical Engineering

Detail-oriented I Conscientious I Tenacious

Jabil Scholar

1. Why did you choose your major?

I always knew that I wanted to do engineering because of my love for math however I was never sure which discipline would be the right fit for me. I chose electrical engineering somewhat arbitrarily and realized quickly that I didn't enjoy it. I took a mechanical engineering class to test out something new and ended up really liking it which caused me to change my major.

2. Are you involved in any school or community activities?

The main club that I'm involved with is the Society of Women Engineers. Being in a male dominated field I feel that it's important for women to have a space to talk about shared experiences, socialize, and help each other out with courses. By participating in this club I hope to provide support to other women who decide to pursue engineering.

3. What is your dream job?

I would love to work in the medical device field. My hope is that through the advancement of this technology people can live longer lives and healthcare costs can be reduced.

4. What advice would you share with your freshman self?

I would tell my past self to join at least one club and get very involved with it. I would say go to every meeting and consider applying for leadership positions in that club. I would also recommend making friends in your major that you can study with.

Dontario Beverly I Mechanical Engineering

Supportive I Inclusive I Passionate

Coussens Scholar

5. Why did you choose your major?

I chose my major because I have always wanted to help people, especially those at a disadvantage. Lack of accessibility to resources and technology has always been a hindering

factor in equitable opportunities for marginalized groups of people. Being a mechanical engineer allows me to help design innovative technology to promote a more inclusive world for everyone, regardless of their background. Growing up in poverty allowed me to experience what it felt like to need resources or technology and not have access to them. So I chose to help be the change my family, friends, and I needed growing up.

6. Are you involved in any school or community activities?

Representation matters! I realized this at a very early age. I could not imagine myself as a scientist or engineer as a kid because I did not know any scientists or engineers. As I furthered my education, became more active, attended conferences, and met professionals and other engineers who looked like me, I developed a stronger belief in myself and a sense of belonging within the STEM community.

I am an active member of the Black Alliance of Scientists and Engineers (BASE), Mesa Engineering Program (MEP), and the American Society of Mechanical Engineers (ASME). Being a part of BASE and MEP allows me to help provide opportunities and support to students that look like me or that come from similar backgrounds as I do. Being a part of ASME enables me to be involved in making a change globally and be a part of a vast community of like-minded engineers that are also passionate about creating change. Additionally, BASE, MEP, and ASME give me the support I need to succeed academically and professionally as an engineer.

7. What is your dream job?

My dream job is to work within the defense industry. More specifically, I want to focus on making more environmentally friendly solutions within the defense industry. I want to focus on controlling the emission rates during manufacturing processes and designing engines and propulsion equipment with a smaller carbon footprint that can help reduce the cO2 emissions within the industry.

8. What advice would you share with your freshman self?

I would tell myself to get involved in clubs and organizations on campus much sooner. The more involved you are on campus, you'll feel a stronger sense of belonging. You belong here and deserve the same space as everyone around you. I also would have told myself to take studying and building study groups more seriously and not be afraid to ask for help. Go to the professor's office hours and ask as many questions as you need until you understand the material. A solid foundational understanding is imperative and plays a massive role in your success as a student. Lastly, believe in yourself and do not compare yourself to others because not everyone started the race at the same place and with the same resources.

Isabella Bowers I Chemical and Materials Engineering

Passionate I Dynamic I Charismatic

Future of Silicon Valley Scholar

1. Why did you choose your major?

I initially chose chemical engineering because I enjoyed learning more about chemistry and math. Throughout my undergraduate experience, I faced several challenges as I was trying to

meet the demands of an engineering major. One of the biggest challenges I faced was managing my time to balance the workload as a chemical engineer while being a student-athlete. Despite these challenges, I discovered my interests in the applications of chemical engineering concepts, and this ultimately led to my decision to continue my education in this major.

2. Are you involved in any school or community activities?

While getting my undergraduate degree at SJSU, I was a part of the women's soccer team for four years. Through this experience, I was able to serve within several leadership positions, including captain of my team and President of the Student-Athlete Advisory Committee.

3. What is your dream job?

I'm not exactly sure what my dream job is yet, but I want to be a part of an industry that positively impacts our society. As of right now, I am passionate about learning more about carbon capture and storage processes, and I would be very interested in pursuing a career within the environmental industry.

4. What advice would you share with your freshman self?

The advice I would give to my freshman self would be to not be afraid to ask for help from peers and professors. During the first couple years of my college experience, I struggled with asking questions and going to my professors for help; however, as I got further into my education, I realized that my professors, and even my peers, were resources that would help me succeed within my major.

Elizabeth Bremberg I Mechanical Engineering

Kind I Smart I Dedicated

Gordon Family Scholar

1. Why did you choose your major?

My path to my Mechanical Engineering major began when I joined a robotics Girl Scout troop, the Space Cookies VEX Team, in middle school. Through Space Cookies, I gained hands-on experience with multiple aspects of engineering in a fun and supportive environment. By the beginning of my senior year of high school, I still had not decided what path I wanted to take for my academic journey. While I enjoyed my experiences in Space Cookies, I felt hesitant about pursuing engineering due to struggles I was having with my physics classes--something not ideal for an engineer. However, thanks to the encouragement of two women engineers who were my Space Cookie mentors, I was convinced that I had the capabilities necessary to carry me through an engineering degree program. Ultimately, I decided to focus on Mechanical Engineering in order to have the best opportunity to explore the different elements of robotics and robotics applications and follow the passion that Space Cookies had inspired.

2. Are you involved in any school or community activities?

While I am no longer a participating member of Space Cookies VEX, I remain in contact and work with the current members to help them gain the same sorts of experiences and knowledge that benefitted me so much.
Since coming to campus, I have joined other organizations to keep me involved in both STEM and the surrounding community.
My first semester I joined Circle K International, one of the largest collegiate service organizations in the world. I found students who were passionate about serving our greater campus and surrounding community. Together with other schools and our sponsoring Kiwanis club, we have helped the South University Neighborhood, as well as community-based organizations across Santa Clara County. Currently, I serve as our club's president, helping to coordinate these events so that we can stay true to our organization's tenets of service, leadership, and fellowship.
My second semester, I also joined the Beta Upsilon Chapter of Alpha Omega Epsilon, a STEM-focused professional sorority. The sisters impressed me with their commitment to the sorority's objective of promoting women STEM professionals and how they felt that being part of the sorority had positively impacted them in their engineering and technology paths. This motivated me to pursue my candidacy and am now a full active member. Seeing the passion of sisters to help support each other and the different opportunities membership presented to us, I decided to run for Recruitment Chair to help spread our message, a position which I have served in since my 2nd year.

3. What is your dream job?
Given the opportunity, I would love to work as a nature roboticist. I have always been fascinated by nature and natural phenomena, so working with natural elements within my field of interest would be ideal. I would like to develop robots that would be used to help natural conservation and preservation efforts. In this way, I would be able to not only give back to our environmental surroundings but explore the best routes of design and engineering that are evidenced in nature. So many of our current systems are mimicking ideas which have been proven through natural development; it only makes sense to keep exploring those ideas to help sustain the life and growth of our planet.

4. What advice would you share with your freshman self?
I would tell my freshman self to reach out to others more and make connections. After finding my niche across my varied student involvement activities, I have been able to gain a better sense of myself and my goals moving forward in my academic and career paths. These connections have become invaluable and irreplaceable to my college experience, and I am forever grateful I pursued them. Had I realized sooner how important it is to make and maintain these connections--not only in student orgs but in courses, I feel that my network would only be stronger, helping me grow even further.

T'che Caver I Electrical Engineering
Hard-working I Perceptive I Dedicated
Future of Silicon Valley Graduate Scholar

1. Why did you choose your major?

Becoming an electrical engineer has given me the opportunity to combine my passion for science and technology with my desire to make positive contributions to society. Growing up in the Bay Area has allowed me to observe and experience the progression of technology first hand, and as science and tech improves, I feel compelled to take part in its progression. My biggest challenge in electrical engineering was learning remotely for my third year of college education, which was my first year of upper division courses. While it was certainly challenging to attend school in such a different time, where we didn't have the privilege of in-person teaching or physical laboratories, I am grateful that I was able to develop an equally important skill set of resourcefulness, flexibility, and determination.

2. Are you involved in any school or community activities?

As an underclassman, I was a member of the SJSU Bridge Club for engineering. This club connected underclassmen with upperclassmen, allowing students further along in their educational journey to share experiences and advice with younger students and provide some insight to help aspiring engineers make informed decisions. As I progressed through my courses, I joined Spartan Hyperloop, which was dedicated to creating a prototype Hyperloop pod and track. Though I was not able to spend as much time working with the Hyperloop team as I would have liked due to COVID-19, my time in the club provided me with valuable information and experiences. Due to my academic standing, I was fortunate enough to receive an invitation to Tau Beta Pi, an engineering honor society. Through my initiation semester, I connected with numerous other engineering students, as well as other Tau Bates who had graduated and were working in industry. Their information was extremely helpful in helping me make my own career and educational decisions. My goal in all of these activities was to gain as much knowledge and experience as possible, while also contributing back to the community. Whether it was the work I did in Hyperloop or advice I was able to share with other members of my honor society, I am grateful for the opportunity to both give and receive words of wisdom that can improve my life, and the lives of those around me!

3. What is your dream job?

I am currently planning to specialize in digital design and embedded systems, and I would like to apply this in a way that improves the quality of life for people in society. I had the privilege of interning at a biotechnology company, and truly believe that the work I was able to partake in and that the company does drive medical advancements and contributes to people leading a healthier life.

4. What advice would you share with your freshman self?

I would certainly emphasize the importance of networking and soft skills to my freshman self. While academic excellence is extremely important, and perhaps the most important foundation of an engineer, networking opens up opportunities to utilize these technical skills. With that being said, I would encourage myself to join more clubs, apply for more jobs and internships, and be more proactive all around as a student and prospective engineer.

Julian Columbres I Computer Engineering

Curious I Attentive I Calm
Jane G. Evans Scholar

1. Why did you choose your major?

I've wanted to be an engineer for as long as I can remember. I've always loved building things, from Legos to catapults to robots, and happened to choose Electrical Engineering as I was fascinated by hardware. In my first semester however, I was exposed to so many aspects of software that hooked me to the point where I decided to make a transition to Software Engineering. During that first semester, I learned how to code in C, built web applications, and even programmed a driving robot.

2. Are you involved in any school or community activities?

This past year I was involved as an Instructional Assistant to one of our CS courses, Intro to Data Structures. This course established my passion for programming, as it built my problem-solving skills with code, so I was extremely excited to have an opportunity to be a part of the class again. As a fundamental course to our degree, my goal was to help deliver as great a learning experience for others as I had.

3. What is your dream job?

One of my dream jobs is to work in the Educational Technology industry, As classrooms are becoming more tech-infused and virtual learning becomes more and more common, I would love to contribute to tools that boost the learning capabilities of students, help them stay motivated through interactivity, and leverage data to create the most effective individualized learning plans.

4. What advice would you share with your freshman self?

I would really stress how important getting involved is. Building relationships with like-minded people through clubs and classes is a great way to stay motivated, be held accountable, and enjoy your time while progressing through your degree. I would also advise prioritizing getting internships - working on projects, contributing in clubs, and working with the university are great learning experiences that can help in the process.

Jason Corona I Mechanical Engineering
Hardworking I Dedicated I Loyal
Ching Family Scholar

1. Why did you choose your major?

I chose my major of mechanical engineering because I had an interest in understanding how things were built and the thought process behind them. I also saw my major as a way to better understand engineering principles that would help me one day design different devices. Overall in choosing mechanical engineering I wanted to gain the knowledge of engineering principles that would allow for me to work on expanding public transportation as well as making it more sustainable.

2. Are you involved in any school or community activities?
I completed the Leadership and Career Certificate Program at SJSU and I am a member of Pi Tau Sigma mechanical engineering honor society. As part of the Leadership and Career Certificate Program I learned about life beyond the university, taking lessons on how to go into the workplace after SJSU. Being part of Pi Tau Sigma allows me to meet other people in the mechanical engineering field, expanding the network of people I know.

3. What is your dream job?
My dream job would be to work in the public transportation industry to be able to help make it more expansive, efficient and sustainable. Public transportation in its different forms throughout needs to be able to get people to more places to be able to be a practical option connecting cities and beyond. Making it efficient is also a goal so that it is an option that is reliably there and quick to get to one's destination. Making public transportation more sustainable is a big goal to be able to fight climate change and to move the world in a better way for the future.

4. What advice would you share with your freshman self?
Advice that I would share with my freshman self would be to trust the process and to apply to internships early on. By trust the process I mean to not get stressed on the things that you cannot control and to trust in the work that was done throughout the semester. Going into a big test is a situation where after doing the necessary preparation I can now trust myself that I studied enough and be confident in the work I did. Internships are also something where the higher the volume of applications the better so it is better to start out early on.

Andrew Duong I Mechanical Engineering
Eclectic I Helpful I Responsible
Jane G. Evans Scholar and Steven Meacham Memorial Scholar

1. Why did you choose your major?
As a teen, deciding on a major really left me lost; I didn't have enough of an idea of what fulfilled me as a person to choose. But I've learned over the years that I am someone who finds value in learning a variety of new skills, bringing my designs to life, and understanding how devices and mechanisms work. Those are all things that I experience in engineering, and mechanical engineering allows me to further explore a variety of experiences because of how broad it is.

2. Are you involved in any school or community activities?
I participate in the Asian Society of Scientists and Engineers and the American Society of Mechanical Engineers, which I like because they allow me to connect with fellow engineers and let me do interesting projects. I have so far accomplished the design and fabrication of two engineering projects, and hope to do more in the future. For me, this is a great way to learn more about design and project planning.

3. What is your dream job?
My dream job would be one that allows me to design practical robotics solutions for the everyday person that I could really see making an impact..

4. What advice would you share with your freshman self?

I think my advice to my freshman self would be more decisive about my life choices and stick to them. Working on engineering projects and in the field has taught me that you can't deliberate on a decision forever; you need to establish deadlines, goals, and make decisions with confidence.

Henry Fan I Interdisciplinary Engineering

Learning I Earth I Guardians

The Saini Foundation Scholar

1. Why did you choose your major?

Having worked in hospitality & tech for a decade, the problems that exist in education are the most demanding yet fulfilling problems I'm fortunate enough to work with. I view peers & colleagues working honest civic labor, who were weeded out of STEM, as scientists for public purpose undiscovered. Although schools have the endowment to guide students to generate significant learning, in their current form, outdated policies are leading us to develop unhealthy habits. This reduces beautifully complex humans, into flat replicas, clones of expertise, and digital fast-food connoisseurs, to fuel the market world. I have one more year left in my computer science & humanities degree, with a goal to teach at community college. These are a few of the reasons why I'm continuing my education - thank you for investing in us.

2. Are you involved in any school or community activities?

I'm a supplemental instructor that prioritizes belonging, joy, and connection for computer science college courses. The answer is in the room, and the results are in students' expressions and their learning.

3. What is your dream job?

Community College Professor who continues to study learning science and pedagogy because students deserve inclusive, heartwarming, joy-filled classroom experiences. Rigor doesn't have to look and feel like rigor mortis... students of all social and cultural backgrounds make each and every one of our academic and industrial institutions better - what a loss for us to not inspire and guide them to engage authentically.

4. What advice would you share with your freshman self?

Prioritize building study skills and learning habits specifically to thrive and succeed in courses & beyond.

Nikitha Fernandes I Biomedical Engineering

Attentive I Honest I Kind

Gordon Family Scholar

1. Why did you choose your major?

I chose biomedical engineering because of the combination of being able to use engineering skills and a science background to help improve the lives of people. When I was younger, I always wanted to be a doctor, but as I got older, I realized that I am interested in the engineering side of medicine as well. I am looking forward to being able to help patients in this behind the scene way, and bring my perspective to the field.

2. Are you involved in any school or community activities?
I am part of the Society of Women Engineers at SJSU. I joined this club to meet new students with a similar mindset to mine, and to make friends during online classes. Since then, I have become highly involved in SWE, as a chair and now part of E-Board. SWE has been such an important part of my college experience, especially to find a supportive community in engineering. In addition, SWE has given me the opportunity to give back to others, by mentoring incoming and current students through the big little program and high school outreach. Outside of SWE, I am also part of Girlstart, a program that provides STEM afterschool programs to 4th and 5th grade girls. Both of these programs are very important to me to help improve the diversity in STEM fields and especially engineering. It also motivates me to continue in my degree and improve the experience of students that come after me.

3. What is your dream job?
I would like to work as a design engineer at a biomedical device company. In this job, I will be able to help design products that will support doctors in treating their patients effectively.

4. What advice would you share with your freshman self?
I would advise myself to get involved in as many clubs and activities as possible. My freshman year, I felt nervous about attending events by myself, and it took me a while to start making connections. In addition, I would encourage myself to make friends in my classes and connect with professors early. This helps with getting help and support when needed, as well as motivation to stay on top to schoolwork and studying.

Genevieve Ferrer I Mechanical Engineering
Curious I Expressive I Funny
Harry Wong Scholar

1. Why did you choose your major?
In my freshman year of high school, I joined the robotics club but was immediately intimidated by the male-dominant club and the skills I did not have. This led me to leave the club soon after joining. In my junior year of high school, my interest in robotics returned. I thought back to my freshman self and didn't want that experience to repeat, so I pushed through the intimidation and told myself to keep going.

2. Are you involved in any school or community activities?
When I have time outside of school, I tutor math and English. It started off with helping my siblings, cousins, and friends with homework and eventually, I tutored for my local community college. I find it rewarding when others become comfortable with asking me questions and

having that "lightbulb moment" because sometimes, asking for academic help can be nerve-wracking.

3. What is your dream job?
My dream job is to work on the mechatronics of medical devices and robots. I would like to make them easier and smoother to use, especially with devices used under stressful situations.

4. What advice would you share with your freshman self?
I would tell my freshman self to ask all the questions, utilize all the resources, and take all the opportunities. This can be done by joining clubs, applying for internships, and networking.

Emmanuel Gomez I Civil and Environmental Engineering
Passionate I Kind I Respectful
Harry Wong Scholar

1. Why did you choose your major?
Ever since I was little, I enjoyed putting things together and figuring out how things worked. When I got to college, I had been fortunate enough to see two civil engineers in my family that put me on the path.

2. Are you involved in any school or community activities?
I am not but I will be joining some this semester, as I hope to create bonds and connections.

3. What is your dream job?
My plan is to become a civil engineer with a discipline of transportation. Many times throughout a city there are problems within the road, I plan on joining a city engineering job to help out others by adding more safety measures to places that don't have them.

4. What advice would you share with your freshman self?
I would tell my freshman self to get involved with student clubs right away. It is a great way to meet people and start a road of connections.

Spencer Guinther I Mechanical Engineering
Tenacious I Insightful I Passionate
Jabil Scholar

1. Why did you choose your major?
The first several years I was in community college, I was fumbling through a generic business degree with no tangible goals or ambitions. I always considered myself a poor student, lacking the aptitude for things like math and science. Once I discovered my interest in STEM, and my work ethic clicked, I was able to turn my attitude around and approach school with renewed energy. A friend of mine was a materials science major at a UC nearby and recommended that I apply my newfound interest in problem solving to engineering. After some debate, I essentially

pushed reset on my degree and decided to become a mechanical engineer. Two years later I do not regret the transition at all.

2. Are you involved in any school or community activities?
I am currently involved in the Spartan Racing Baja club at school. I chose Baja because I spoke to a couple members at a table event on the quad one day and saw how passionate and welcoming they were. The project is something I have never had experience in, but the goal excited me; to design and build a competitive racing Baja. I look forward to applying the lessons I have learned in school to something tangible like this to create a product that accomplishes a specific goal. It's all fine and good in theory but being able to apply these things to obtain a real world outcome is what makes it all worth it. I am excited to develop a new skill set with people that are driven and passionate about the same interests as me.

3. What is your dream job?
At this moment in time, I would like to work on a propulsion system and design for electric aircraft. Sustainable air and spacecraft propulsion is an issue that is just now beginning to be addressed, however the rising threat of global warming due to greenhouse gas emissions needs to be tackled quickly. I think electric aircraft and advanced air mobility systems to eliminate the need long term for ground based transportation is paramount in the development of our society and our ability to overcome struggles with a changing climate.

4. What advice would you share with your freshman self?
I would advise my freshman self not to discount himself so early. Understand that everyone starts somewhere and there is no reason you cannot learn a new skill. If you work hard and ask for help when it is needed, you really can do anything you want. This is something that took me a long time to understand and would have been beneficial had I believed it earlier in my college career. Involvement in clubs and school activities can help facilitate that growth, and at the very least can show you what you are not interested in.

Catherine Hernandez I Computer Engineering
Creative I Determined I Passionate
The Saini Foundation Scholar

1. Why did you choose your major?
I chose to study engineering because I've always had a love of science and math, but also being creative. So, when I discovered what an engineer was in middle school it seemed like the perfect field for me! It wasn't until Junior year of high school though that I discovered Software Engineering as a career. When I would tell people I wanted to become a software engineer, they would always mention how I'd be lonely since there aren't many Latinas in that field. I didn't let that scare me though! Although sometimes I can feel isolated, I know there are people who support me and I just want to be an inspiration to the next generation of engineers.

2. Are you involved in any school or community activities?

I just started working as a Peer Advisor for the MESA Engineering Program at SJSU and I love this job because it really allows me to support my fellow engineering students. In addition, I am also a member of SOLES, the Society of Latino Engineers and Scientists. This club has been extremely helpful in making me feel more comfortable away from home, Los Angeles, and more confident in my ability to become an engineer.

3. What is your dream job?
Within the field of Software Engineering I really hope to eventually become a Technical Program Manager. Although I love coding and designing, I also know I have the skills necessary to lead a whole team of engineers. Besides engineering though, I am also extremely passionate about STEAM education and want to continue my work in teaching and inspiring TK-12 students to feel they can also pursue careers in STEM.

4. What advice would you share with your freshman self?
Don't be afraid to ask questions and seek support!

Jared Ho I Computer Engineering
Academic I Artistic I Driven
Ching Family Scholar

1. Why did you choose your major?
I have a strong interest in emerging technology. Because of this, I started tinkering with what I had at home and got the support of my parents in my newfound hobby. This ultimately lead to me choosing Computer Engineering as my major, as I got very interested in microprocessors and how they work.

2. Are you involved in any school or community activities?
I'm involved with the Spartan Marching Band. I enjoy participating in it as it's a fun and diverse group of people who work together to provide entertainment for schools.

3. What is your dream job?
I'd like to work for a large semiconductor company. I believe that current microprocessors are at the end-of-life, and there are better, more efficient designs to make technology more available and easily accessible to those in need.

4. What advice would you share with your freshman self?
Experiment more while there's more time. Try to join more study groups and clubs as you'll make many friends there.

Alec Jaculina I Industrial & Systems Engineering
Creative I Outgoing I Intellectual
SVES Scholar

1. Why did you choose your major?

I chose my major because I enjoy helping people and improving current processes that allow people to feel comfortable while doing their tasks. I always had trouble doing certain tasks but after applying what I have learned from my classes into my own life, I would love to help those with similar issues.

2. Are you involved in any school or community activities?
I'm part of the IISE club on campus. The IISE club is filled with opportunities by networking with like-minded individuals and being able to learn more about industry. I had the chance to tour BD and it helped mold my understanding of how an engineer should interact with other departments and what they accomplish on a daily basis.

3. What is your dream job?
My dream job is to be a user researcher with a focus in human computer interaction. I've always had issues with learning and being able to identify certain features and components with products. Empathizing and alleviating frustration from a user's point of view is my dream job.

4. What advice would you share with your freshman self?
My advice to my younger self is to put myself out there more by joining clubs. Get internships as soon as possible because that will not only help you gain experience but to guide you closer to your dream job.

Brianna Liang I Mechanical Engineering
Creative I Persistent I Curious
Jabil Scholar

1. Why did you choose your major?
Growing up in Silicon Valley has shown me how versatile and valuable it is to have an education in engineering. I gained experience in the industry by assisting mechanical engineers in high school, which affirmed my interest in pursuing mechanical engineering.

After graduating, I was accepted into another reputable university for mechanical engineering. However, due to complications with my health, I was moved to long-term hospital living and had to withdraw from the school. When the accessibility to online classes significantly increased during the pandemic, I saw the opportunity to resume my education, and I enrolled in online classes. Taking these were the highlight of my days and gave me the strength to make a full recovery, leading to my discharge last year and transferring to SJSU this year. My persistence to continue mechanical engineering during this tough time, makes me feel confident about choosing this major and tackling any challenges in my education or career in the future.

2. Are you involved in any school or community activities?
I am excited to be a part of the Society of Women Engineers (SWE), as women are the minority in engineering. Unfortunately, in my earlier education, I encountered microaggressions against my gender, which is an experience that is not unique to women in engineering. I always felt I had to work twice as hard to prove my skills and knowledge. However, it has been refreshing to

feel supported and respected by the staff and my peers at SJSU. For that, I feel gratitude towards my predecessors in SWE. I am looking forward to connecting with women engineers and giving back to the community by empowering and encouraging young girls to pursue engineering.

3. What is your dream job?

My dream job is to come up with innovative engineering solutions that will benefit those in my community. As a Pilates instructor and mental health facilitator, I have worked with many people with disabilities, injuries, or limitations. I believe that technology can significantly improve the lives of these people, such as aiding them in mobility or lifestyle management. My passion for engineering and health is why I feel so empowered in being chosen for the Jabil scholarship. Jabil is the largest global provider of healthcare manufacturing solutions. Receiving this scholarship has been a huge stepping stone and aid in working towards my dream job.

4. What advice would you share with your freshman self?

The advice I would share with my freshman self is to not be afraid to communicate to seek resources. School has a plethora of resources and connections, whether you need support with your coursework, financial aid, medical accommodations, or career. Connecting with the respective school counselors to find out about resources has enabled me to receive extra support where needed and worry less about any external challenges, greatly enhancing my education experience.

Steven Lianto I Electrical Engineering

Deliberative I Analytical I Reliable

Future of Silicon Valley Graduate Scholar

1. Why did you choose your major?

Apart from soccer, my passions have always been related to technology. Due to that, my future degree was set in stone before I even graduated from high school: Engineering. The real question was, which Engineering field should I choose? Since I had a strong programming background, combined with my love for computers, I was thinking of pursuing Computer Engineering. But, due to how heavily impacted the program was at San Jose State University, I went for the alternative of Electrical Engineering with Embedded Systems/Digital Design specialization.

Hunting for a job for the first time was not a walk in the park for a new Bachelor graduate like me. When I managed to land my first professional career as an Electro Magnetic Compatibility (EMC) Engineer, my expectation was pretty low considering that the position focused more on analog circuitry and mixed signal RF design. Little did I know, that I would I come to love the industry and develop an interest in analog circuit design over time. For that reason, I am choosing Electrical Engineering with specialization in Analog/RF/Mixed-Signal ICs for my Masters, to learn more about designing techniques that will be effective in reducing Electromagnetic Interference (EMI).

2. Are you involved in any school or community activities?

Currently, I am a Resident Advisors of the SJSU International House (I-House), where I previously spent 5 semesters living and befriending people from all over the world, during my Bachelor years. My initial goal of choosing the I-House was because of the opportunity to meet people from different backgrounds and learn about their various cultures. When I decided to pursue my Masters' degree at SJSU, I did not need to think twice and chose the I-House as my home for the next 2 years. This time I have a different goal in mind, and that is to create an environment in the house where new residents can feel at home. Hopefully, some of them will come back to this place, like I am, due to our love and connection to the residence.

3. What is your dream job?

Before I worked at a 3rd party EMC Laboratories called Bay Area Compliance Labs, Corp. as an EMC Test & Lead Engineer, my goal was initially to become a Digital Design/FPGA Engineer. During my 3 years working at BACL, I came to love what I was doing. I have met countless engineers from small startups to tech giants who struggled to achieve EMC compliance as they did not take EMI interference and susceptibility into account when designing their product. Some of them have shared stories of how their companies have splurged unimaginable amount of time and effort to the point of hiring external consultants just to reduce EM emissions by miniscule amounts. In worst case scenarios, they had to scrap their current circuit design and come out with a new one. Coming back to SJSU to pursue my Masters degree, my dream job after graduation is to become an analog circuit designer specializing in mitigating EMC/EMI problem. With the design techniques & knowledge that I will learn from SJSU and my previous experience working as an EMC Engineer, I hope to be working with other professionals to effectively design low EMI circuits.

4. What advice would you share with your freshman self?

To actually get internships before graduation, it is very crucial to learn how to apply the knowledge in real world applications.

Daniela Marinez I Industrial & Systems Engineering

Traveler I Animated I Shy

MESA Scholar

1. Why did you choose your major?

It took me a while to really figure out what I wanted to do. I took a break and discovered a lot about myself and what my interests are. Even though I did take some time off, I feel it was for the best as it led me to figure out what I wanted for the long term for my career.

2. Are you involved in any school or community activities?

I am involved in SOLES and it has been great getting to know my fellow Latinos in engineering as I feel I am a part of the community, and it has made my college experience much more fun.

3. What is your dream job?

My dream job would be to become a supply chain engineer. Right now, there are so many supply chain issues around the world that are affecting everyone in terms of rising prices. I'd like

to be able to come up with efficient solutions where such issues won't impact society as much as they do.

4. What advice would you share with your freshman self?
I would tell myself to join as many clubs, try to gain experience and to enjoy every moment as it will come to an end.

Merari Mejia Robles I Mechanical Engineering
Tenacious I Empathetic I Charismatic
Jabil Scholar

1. Why did you choose your major?
My family and I are from Colombia. Both of my parents and my brother are engineers. My parents moved to the US to give my brother and I better opportunities. They sacrificed many things by moving here so they motivate me to work hard so they feel their sacrifices paid off. I also see the difference between the life I carry and the life my family in Colombia has. As a result, I wanted to continue the family trend, make my family proud, and exploit all opportunities I come across. I choose mechanical engineering as my major to help me accomplish this and be able to create devices and products that will impact billions of lives.

2. Are you involved in any school or community activities?
I am part of multiple clubs on campus. I participate in Society of Women Engineers, Society of Latino Engineers and Scientists, and Biomedical Engineering Society. I also play soccer in the coed intramurals at SJSU and at Sunday League. Participating in soccer is important to me and my family because I've played soccer all my life. Despite the different places we have lived, going to my soccer games was something my family always enjoyed. The soccer field has also always been a place I can escape to. Continuing to play soccer is a way to keep that tradition alive and continue enjoying the game while having a healthy habit. Another thing I love about soccer is the team and environment and the discipline it taught me. I hope to apply everything I've learned by playing soccer to my daily life and continue to meet people through the sport. One day, I hope to coach a kids soccer team and share my knowledge, passion, and charisma for the game with my team.

3. What is your dream job?
As a mechanical engineering major, I know there are plenty of industries I can work in. I currently work in the biomedical field but intend to explore other areas. My dream job would be one where I wake up every morning excited to see what I will do. I hope my team is welcoming and helps me grow professionally and as a person. I would be designing a product that will impact and benefit many lives. I would like my company to actively be involved and give back to the community.

4. What advice would you share with your freshman self?

One piece of advice I'd give my freshman self is enjoy the experience and get out there. Whether it is through classes, sports, or events, meeting a variety of people is one of the best things in college.

Luis Mendez I Mechanical Engineering
Confident I Determined I Patient
Jabil Scholar

1. Why did you choose your major?
In high school I was sure I wanted to do something in STEM but I was unsure of what to pick. After doing my own research, I chose ME because of how diverse and versatile it is in the engineering field. Mechanical engineers are responsible for building the current world as we know it and I think that is something worthwhile to be a part of.

2. Are you involved in any school or community activities?
I'm currently the social chair for Kappa Sigma SJSU. I chose this to make more connections, become part of the school's student community, and also to enjoy my college experience to the fullest before it ends. In the end I hope to walk out with lifelong colleagues, friends, memories, and a mindset that's ready for my career after SJSU.

3. What is your dream job?
Because ME is so broad I am exploring my options to figure out where I want to be in the future. I think there's beauty in that because whatever I choose I know it'll be worthwhile and it'll help people and the planet.

4. What advice would you share with your freshman self?
I would tell my freshman self to put himself out there sooner. There's so many different people you can meet and life long connections that can happen in your first year of college.

Garrett Miller I Computer Engineering
Confident I Charismatic I Honest
Jane G. Evans Scholar

1. Why did you choose your major?
Choosing Computer Engineering as my major took a very long time and I didn’t really know what I wanted to major in by the time I graduated high school. I knew I wanted to do engineering but there were so many different disciplines and I didn’t have very much exposure to them. I wanted to find something that I was truly passionate about and eager to learn. The COVID-19 pandemic took a lot of time away from me and every other student who was in the process of trying to explore different opportunities and find what they were truly passionate about as we were locked in our houses for over a year. However, my senior year of high school changed that and I was finally able to find what I wanted to major in and more importantly something I was passionate about. I was lucky enough to take computer science and I instantly fell in love with the subject and became fascinated with technology. I have always liked technology but I was

never able to explore it until I took that class. I decided to major in computer engineering because it truly allowed me to do something I am interested in and passionate about, as well as hopefully make a difference in the world.

2. Are you involved in any school or community activities?

While I am still looking for opportunities around the campus and San Jose community as a freshman, I have been plenty involved in both school and community activities back in my hometown of Bakersfield. My favorite community activity that I am a part of is being a youth soccer coach. I spent a lot of time on the weekends and after school helping young soccer players develop their skills on the field and grow as people off the field. I get to set an example for the next generation and give them something to look up to and maybe even strive to be like. I love being able to teach both on and off the field as it also helps me grow as a person as I hope to be able to inspire and help the future of generations of soccer players and human beings.

3. What is your dream job?

My dream job is a job where I can help people. I can't say I know exactly what that looks like yet but I do have the next four years here at SJSU to figure that out and use the amazing education I will receive here to make a real difference in the world. I would like to be able to use the knowledge I gain at SJSU to be able to provide technology or make technology more accessible to impoverished nations. I think it would be amazing to find a way to further improve technology and make it more efficient so it will use less power, making technology more accessible and also helping the environment by requiring less energy to use the technology that runs the world.

4. What advice would you share with your freshman self?

As a freshman I don't quite know what my advice for myself would be but I'm sure I'll have a piece of advice that I wish I could have given myself by this time next year. So instead I'm going to try and predict what my advice to freshman self would be; I think that it will be very important to find a good balance between school and life, not getting too caught up in one or other.

Jateen Nagindas I Chemical and Materials Engineering

Patient I Determined I Mindful

Jabil Scholar

1. Why did you choose your major?

As a child I was fortunate enough to have an abundance of scrap metal and waste at my disposal. This led to always being outside or in my father's workshop building and creating new inventions and projects. Finding the right `scrap' for the project I was working on planted the seed for my interest in engineering and problem solving. When the time came to choose an engineering discipline I was drawn to chemical engineering as I have a huge passion for chemistry. That was until I heard about materials engineering. I was instinctively drawn to the discipline as it felt like I was fulfilling my childhood creativity on a grand professional scale. The first university I went to was in South Africa and it did not have materials engineering. However, I was determined to become a materials engineer. Upon doing my research I found out that

materials were offered at the masters level. Therefore, I enrolled in chemical engineering with the intent to further my studies into the masters program of my dreams. Fate would have it that four years later I am enrolled in a BS in materials engineering in the heart of Silicon Valley.

2. Are you involved in any school or community activities?

SAE Baja- I have a keen interest in off-roading as I grew up with dirt bikes and currently I am an avid mountain biker. This team is the perfect opportunity for me to gain experience working on an engineering design team and learning all that goes into a group up project. It just so happens that the project is also something I would thoroughly enjoy, so it is extra motivation to get as involved as I can.

3. What is your dream job?

My dream job is to be at the forefront of developing new sustainable materials and product designs so as to reduce the plastic consumption and reduce the volume of landfills. I also hope to work with a community local to my research area to help create a more immediate difference instead of waiting for my research to reach commercial scales.

4. What advice would you share with your freshman self?

Student clubs are definitely a priceless experience even if outside your field of research. Do more independent learning like keeping up with new technologies, advancements and modern world problems. Stay up to date with what is happening at the big research labs such as CERN or Lawrence Livermore.

Yuta Nakajima I Mechanical Engineering

Sympathetic I Dedicated I Passionate

Qualcomm Scholar

1. Why did you choose your major?

In the beginning of my high school career, I was having difficulty getting along socially with the other people in my grade. I had friends, but I was unable to have a deep connection with anybody. Everyone ended up spending time with the people they are closest to, and I was left feeling alone and empty.

Joining the robotics club helped me meet a whole new group of unfamiliar people. This was overwhelming and frightening at first, especially since I was already having social issues. However, they eventually became some of the closest people in my life. Spending hundreds of hours in the lab working on the same robot, facing the same challenges, overcoming obstacles, and working as a team allowed us to bond closer than friends, almost like a second family. This experience was almost magical for me and taught me what true teamwork and friendship is. I chose my major in hopes that I will be able to continue having more experiences like this.

2. What is your dream job?

I want to be able to design things that can help other people. This might be something like self driving cars, creating a system to improve major problems like pollution, creating new medical devices, and more.

3. What advice would you share with your freshman self?
I would tell my freshman self to stop worrying so much. Looking back, there were a lot of missed opportunities because of being too scared. One of the biggest regrets I have from high school is not joining the robotics club in my freshman year. A lot of the other struggles I was facing in my freshman year could have been solved by this. If I could give advice to my freshman self, I would tell myself to stop worrying and reassure myself that everything will work out one way or another.

Omar Ndao I Electrical Engineering
Hungry I Passionate I Driven
Ichor Systems Scholar

1. Why did you choose your major?
I chose electrical engineering because I have always had a love for technology. Some barriers that I have faced include being told that I couldn't do it which gave me the drive and motivation to succeed.

2. Are you involved in any school or community activities?
I am involved with AIESEC which has allowed me to meet people from various backgrounds. This club means the world to me since it has allowed me to expand my horizons. I hope to become a more sociable person by being a member.

3. What is your dream job?
My dream job is to be a test engineer. In the industry, I believe that test engineers are always needed to test products and identify any faults before the product is shipped to the customer.

4. What advice would you share with your freshman self?
Make sure to start applying for internships early. It is never too early to start building your network.

Andy Neidhart I Computer Engineering
Meticulous I Genuine I Hard-working
Jane G. Evans Scholar

1. Why did you choose your major?
I chose the Computer Engineering major because it is a subject that inspires me to learn. Throughout my life I have found ways to further that interest both in and out of school. I have always had a more mechanically inclined mindset. I loved all things tech, and as I started to take more classes revolving around engineering my fixation on engineering and how things work really started to develop. I had originally been stuck between electrical engineering, working on circuits and electrical systems, or software engineering where I could focus more on code. After some long deliberation and talking to different teachers I ended up on a happy medium that allows me to learn about both. Each learning concept is a building block that has deepened my

interest in more specific areas of Engineering. Ultimately my experiences in and out of the classroom have led me to a passion that I want to explore as my major. Additionally being from an underrepresented group in the engineering field is something that pushes me and motivates me to learn as much as I can.

2. What is your dream job?

I want to pursue a career in the Computer Engineering field. Currently I am leaning more towards something in Firmware Engineering where I can still be close to the machine itself. I want to make systems and machines more efficient and help create new computerized things that can change the world we live in.

3. What advice would you share with your freshman self?

I would tell my freshman self to get more involved with student organizations and start networking with people. The other advice I would give myself is to get started early in creating a resume and looking for opportunities.

Diep Gia Tuan Ngo I Electrical Engineering

Hard working I Kind I Empathetic

Jabil Scholar

1. Why did you choose your major?

I grew up in a family with a generation of electrical industry workers. From a young age, I was exposed to electrical circuits and helped my father repair broken devices so I realized that I had a passion for this field. Unlike the Vietnamese who came to the US with a background in English, I come from a poor province in Vietnam and it is very difficult to get a good education in a foreign language. And I totally understand that to be successful in America, I had to be able to speak and write English well. My first two years in the US were extremely difficult because I had to work and go to school in an environment where the language and culture were very different. Thus, I spent at least an hour every night before going to bed studying English. At work, I felt very insecure about my pronunciation, but that did not discourage me. I had wonderful colleagues who helped me correct my pronunciation and my grammar. They always encourage me to talk and share my story with them. They helped me become more confident in speaking English, especially with strangers. Thus, I started opening my heart to people and I realized that as long as I put in my best, I will achieve my goals.

2. Are you involved in any school or community activities?

I usually come to Chu Pho Tu in San Leandro to attend some activities to help homeless people. I love to join some community activities because I could have more friends and listen to other's stories.

3. What is your dream job?

I would like to work for a startup company, so I could do more than electrical engineering. I also chose this major because I want work with other people and learn things from them to improve myself

4. What advice would you share with your freshman self?
Apply for internships, have more friends , attend students clubs and never miss class

Tida Ngov I Biomedical Engineering
Caring I Passionate I Open-minded
SVES Scholar

1. Why did you choose your major?
Growing up, I was surrounded by many family members and friends who suffered from various types of illnesses, from cancer to kidney problems, from mental health challenges to appendicitis. Seeing the people I loved and cared for having to struggle, and being unable to do anything to help in a meaningful, impactful way, really pushed me to want to work in the medical field. There, I will be able to use my knowledge and skills that I've gained in order to truly impact those in the community.

2. Are you involved in any school or community activities?
I am involved in several clubs, including Society of Asian Scientists and Engineers, and hope to start volunteering at Sutter Health Hospitals soon! I am very excited to begin getting involved in the field, so that I can gain more experience and help give back to the community. Right now, I've been mainly focused on helping out my family at home, since my grandfather was recently diagnosed with cancer and my grandmother and mom are frequently sick, so between commuting 2 hours to school (4 hours roundtrip every day) and focusing on school, I haven't had as much time to spend on my own activities, but hopefully that will change soon! I would like to be able to give back to the community and focus on community care.

3. What is your dream job?
Right now, my dream job would be working in the neuroscience field! I'm still working out what I want to specialize in specifically, but I would love to be able to work with others on furthering the existing technology and science we have in order to improve the quality of life for others in the community!

4. What advice would you share with your freshman self?
Some advice I would give to my freshman self (me from last year) would be to slow down a bit, and make sure I take time for myself. I can't perform my best if I'm not at my best, and I think taking time for myself to unwind and enjoy the little things really helps me do better in the long run. Also, don't be afraid to take chances, whether it be for opportunities or even just talking to people! There are so many opportunities and experiences that you can have if you just take the leap, and it'll pay off in the long run!

Caroline Nguyen I Biomedical Engineering
Divergent-thinker I Patient I Efficient
Future of Silicon Valley Graduate Scholar

1. Why did you choose your major?

In high school, I was part of a group of volunteers that helped sort and package medical supplies for those affected by Hurricane Maria in 2017. During this period, I was exposed to a wide range of medical devices and instruments. While handling these medical products and thinking about how they would help those affected by the hurricane, my interest in the designs and functions of each device was piqued. Because of this experience and my general interest in pursuing a career in healthcare or engineering, I chose to major in Biomedical Engineering.

2. Are you involved in any school or community activities?

Due to other priorities, I am not currently active in school or community activities. However, during my undergraduate career at SJSU, I was involved in the Vietnamese Student Association (VSA) and the Biomedical Engineering Society (BMES). These organizations will always be important to me because they helped me connect further with my cultural background and develop my professional skills through interacting with other students with similar interests and backgrounds.

3. What is your dream job?

My dream job is to work on designing and developing new medical device products at a medical device company. I especially want to work on projects that aim to make the device more cost-effective and affordable because I believe that healthcare products and services should be more accessible.

4. What advice would you share with your freshman self?

Don't be afraid to try new things. Join clubs and attend networking events. Initiate conversations. Utilize the resources that are available at SJSU and within your department. Grades aren't everything. Take care of your mental and physical health.

Hien Nguyen I Computer Engineering

Hard-working I High-demanding I Self-motivated

SVES Scholar

1. Why did you choose your major?

My first line of code was in the summer of my sixth-grade year. My father registered for me a course to learn about computers and programming. That was when I typed my first line of code and started to love coding. As I learned more about programming, I saw how complicated tasks could be simplified by programming. Coding not only simplifies tasks but also solves complicated problems. The world has changed a lot thanks to the development of technology, and I want to be a part of that innovation. That's why I chose my major as Software Engineering at SJSU.

2. What is your dream job?

My family moved from Vietnam a few years ago, and my parents do not speak English. That is a huge problem when they have medical appointments. Usually, I have to assist them in every appointment as an interpreter. There are translation applications, but they are ineffective in

translating Vietnamese, especially in professional fields. My dream job is to be an expert machine learning software engineer, especially in voice recognition and translation, so that I can develop a translation application that helps people from minority communities to be able to visit any appointment without the help of an interpreter.

3. What advice would you share with your freshman self?
The difference between college and high school is that college is the practice of your future career. College life is not only about studying but also about making connections. networking, broadening your knowledge and learning about internship and career opportunities. So, getting to know your classmates, participating in student clubs and study groups, and attending workshops are great ways to expand your networks.

Charlie Nino I Mechanical Engineering
Involved I Organized I Enthusiastic
Marvin and Anna Jean Sheets Scholar

1. Why did you choose your major?
Ever since I was young, I've always enjoyed brainstorming different ideas, innovating, and creating with Legos. I was first introduced to the field of engineering through my older cousin who works as an R&D engineer for a medical technology company. After research and interviewing others in the field, I found that Mechanical Engineering would be the perfect major for me due to its broad scope and versatility. I see engineering as a field that allows for the power of innovation and change, to positively impact our society. My major will allow me to pursue a career in many engineering fields where I can apply my technical knowledge, creativity and communication skills to find solutions through innovation and serve a greater purpose in this world.

2. Are you involved in any school or community activities?
I am very involved both on campus and in my community. Being involved for me is essential for personal and professional growth. It is a great way to practice leadership, communication, and teamwork to prepare for a future career, and it allows for opportunities and networking. I am enthusiastic about being involved not only for these reasons but also because involvement helps establish a community that you can contribute to, one that supports growth and promotes positivity.

I am currently the president of the SJSU American Society of Mechanical Engineers Section (ASME) and a member of the Biomedical Engineering Society (BMES). I joined both clubs my freshman year and have gained a lot of valuable experiences that have helped me in my journey. I chose these clubs specifically because I wanted to meet people in my major with similar interests and work on projects where I can apply ideas learned in the classroom.

I have also been actively involved in the MESA Engineering Program since my freshman year, and have had the opportunity to attend several career enriching activities from resume workshops, networking nights, and industry mixers. I just started my second year working as a

Peer Advisor for MEP and enjoy being in a position where I can give back to the SJSU community, by helping engineering students find the support and resources they need to succeed.

I have one other role on campus as a House Leader for the Spartan Village first-year engagement program. I currently have 227 freshman engineering students who I share resources with and encourage involvement and attendance at community events. I was also recently chosen to be an ambassador for the Engineering Go Program, which I have been actively involved in since my first year at SJSU. With these roles, I am able to use my experiences to help support others as I continue to learn and grow myself. Involvement is one of my passions and I hope to continue making a positive impact through my activities as I pursue my goals.

3. What is your dream job?

With mechanical engineering the field is very broad and open to many different opportunities. While I don't have one dream job, I am very passionate about being successful in my field. I am very interested in technology and biomedical engineering and would like to see myself as a Research and Development Engineer, so that I can be a part of a team and work to identify problems and find solutions. I've seen this with my cousin who works in medical technology and it inspires me to use my engineering degree similarly, to innovate for an advanced future.

4. What advice would you share with your freshman self?

I love this question because in my on-campus jobs, I often advise freshmen and share my own personal experiences with them.

Advice I would share to my freshman self is to take advantage of all of the opportunities and resources available to you. Your college experience is truly what you make out of it! Get involved, make friends, have fun, and gain experience from all that you can.

It is never too early to start thinking about networking and internships. Don't be afraid to apply or ask questions because that's what will lead to your growth. I remember attending career fairs and industry mixers as a freshman just to speak with professionals to help me get an idea of what they may look for in potential candidates. It really is a great way to make connections, learn about different companies and see where your interest lies. It's also great practice to perfect your professional sales pitch and interview skills.

My final piece of advice to my freshman self would be to keep your end goal in mind, to remind yourself of what you're working for when it gets tough. Your professors are there to help you succeed so don't be afraid to reach out to them when you need help. Having a supportive network of peers, faculty, and advisors will help push you to continue pursuing your goals to meet your dreams. Don't let anyone tell you you are not capable of something, challenge yourself to achieve the impossible.

Gift Olatunji I Industrial & Systems Engineering

Persistent I Kind I Courageous
Ichor Systems and MESA Scholar

1. Why did you choose your major?

I chose my major because it shaped my past challenges into an achievable goal. I used to think education was a punishment that people had to experience to escape unemployment. My mindset to learning was bad because I grew up in a third world country where the educational system was with little to no support. However, after starting school at SJSU I was able to learn in a supportive environment that allowed me to be productive in my career. At SJSU I developed the passion for systems management and decided to pursue my major in Industrial and Systems Engineering. I believe this major will help me attain my professional goals of working in an organization that supports minority groups.

2. Are you involved in any school or community activities?

I actively take part in church activities by volunteering during celebrations and other activities. This helps me come out of my comfort zone, meet new people and learn new things. My parents also see this activity as a good way to spend my time, it has become an opportunity for my family to bond while helping the community. This activity has motivated me to help those who are less privileged with the knowledge I gain from my church experiences.

3. What is your dream job?

I hope to work in an organization that supports students that are part of minority groups. As a woman of color, I understand the struggles of studying in school, undergoing challenges but not having anyone to speak to. I hope to join this organization so I can share my experience which will give more ideas to better support minorities in the society. I hope to share information that will better support current students who may be having any challenges while studying.

4. What advice would you share with your freshman self?

Take the extra step to form or partake in study groups. It will help to make new friends and is a great form of networking.

Armani Pann I Mechanical Engineering
Hardworking I Passionate I Respectful
Ditmore Family Scholar

1. Why did you choose your major?

I chose mechanical engineering because I've always found mechanical aspects interesting. I always took apart toys or anything that had screws in them and would become fascinated on how people were able to put that object together. As I got older, I wanted to deconstruct more complex objects such as video game consoles and computers. I didn’t have the knowledge on how to put the object back together. To overcome this challenge, I would analyze all the screw holes, shapes, patterns, etc. and find other parts that had the same features as each other and put those together.

2. Are you involved in any school or community activities?
I am currently joining San Jose State's formula racing SAE club. I chose this club not only because I want to work in the racing scene, but also I want to surround myself with people who are going to be able to share their knowledge with me that can be beneficial to my major and future. Joining this club would make my family proud because I am often shy around lots of people and I would be surrounded by things I love, cars and engines. I hope to gain a better understanding of combustion engines, to make new friends, and most importantly to have fun and make core memories.

3. What is your dream job?
My dream job is to be a part of the Honda Racing team. I plan to use mechanical engineering to help construct and design better components of their vehicles. For example, I could construct and engineer a different style of piston that are more reliable and helps achieve higher horsepower. This is beneficial not only to Honda's racing team but to consumers as well. Because of these new and advanced parts, it could potentially make vehicles cheaper to make and buy and have a longer life span.

4. What advice would you share with your freshman self?
If I had the opportunity to tell my freshman self advice, I would tell them to take more risks and to get out of their comfort zone. This means that I would've wanted myself to join more clubs, apply for internships despite my skill level, and to connect and socialize more to gain valuable knowledge from others.

Indigo Ramey-Wright I Industrial & Systems Engineering
Hard working I Thoughtful I Creative
SVES Scholar

1. Why did you choose your major?
I chose Industrial and Systems Engineering because I wanted to protect our environment and help those in my community. Growing up, I was always heavily involved in my community. I volunteered in local programs that specialized in community clean up projects, free tutoring to students, and community events. With my interests being more science and math based, I was always searching for ways to use my passions to help my community. Engineering was my answer, allowing me to use my specific skills confidently to help those around me. I look forward to learning more and honing my skills to continue protecting our environment and benefitting my community.

2. Are you involved in any school or community activities?
I am involved in the Society of Women Engineers, SWE, and plan to attend even more of their events this year. I hope to get involved in more clubs on campus, specifically Spartan Racing.

3. What is your dream job?
My dream job would be working with electric vehicles. As an engineer, I want to give back to our planet, and EV is the way I want to do it. I think they are incredibly interesting machines that

require so many different kinds of professions - -and engineers -- to come together and create a final product. I want to be a part of a team that creates efficient and powerful electric vehicles, with minimal waste.

4. What advice would you share with your freshman self?

I would tell my freshman self to appreciate her work ethic and her environment. I would not be where I am today without my support system of my family and friends. Looking back at my younger self, I often took it for granted. Realizing that I have a community around me that supports me has helped push me to create a better work ethic where I know I am putting my best foot forward in my projects and education.

Christopher Ramos I Civil and Environmental Engineering

Determined I Honest I Resilient

Akin Family Scholar

1. Why did you choose your major?

You'd assume the life of a seventeen-year-old would be nothing short of ordinary. At seventeen, my life was anything but ordinary. When I was 8, my mom was diagnosed with stomach cancer. After a tough couple of years, she beat it. In 2013, again, she was diagnosed but this time, the cancer had spread to her kidney. As a young kid, my father wanted to protect me and my twin brother. I did not understand what was happening nor did I want to. As a junior, I'd go straight home after class because I made it my priority to take care of my mom. My father never asked but I could tell he was drowning. Working long hours every day in order to pay for the expenses my mother needed. Suddenly, it was as if the weight of the world was on my shoulders. Better me than my brother. At some point, I came to realize how fleeting our time here really is. On November 9th, 2015, the long-fought battle came to an end as my mother passed away.

As a young kid, I have always dreamed of the possibility of buying my own land and building my own home. I fell in love with structures. I've always found them fascinating, especially the Coronado bridge in San Diego but that's beside the point. I knew I wanted to build anything and everything for the rest of my life. All I could think of was graduating from college, getting hired by a General Contracting firm and finally starting my life. It seemed so close yet so far. I can't explain the feeling, but I could sense the happiness in my mother's heart when I told her this. She couldn't speak towards the end, but she didn't have to because I knew her. She fought vigorously to give her children 9 more years of love and compassion and for that I will always be grateful.

2. Are you involved in any school or community activities?

Yea I am a Peer Advisor for the MEP Program. The reason why I wanted to become a Peer Advisor is because this program changed my life since I joined in the fall of 2020. It provided me with the necessary tools to become successful by giving me opportunities to change my future. I landed my first internship last summer through MEP which resulted in the company offering me another internship which I just completed in August 2021. That resulted in the company offering me a full-time position for when I graduate and now, I am in the position to change the course of

my family's history. If I could help one student and change their life the same way it happened to me or at all, then I did my job.

3. What is your dream job?

My dream job is to eventually become a Vice President of a general contracting firm. I would like to be a part of bringing "Green Buildings" to a whole new scale. In the summer of 2020, I had the privilege of working on the largest geothermal installation in North America. It was the first time that sustainable design was brought into the workplace. I believe this is the first stepping stone in huge corporations creating these kinds of buildings for their employees to help combat the fight against climate change.

4. What advice would you share with your freshman self?

Advice I would offer my freshman self is to utilize all the resources around you. By doing so, you might also get connected with other people where opportunities can arise and present themselves. It's important to understand that networking really is something that can help accelerate your career as you start off your college career. Those relationships can lead to internships, scholarships & plenty more career opportunities.

Max Rothe I Mechanical Engineering

Social I Reliable I Motivated

Steven Meacham Memorial Scholar

1. Why did you choose your major?

I have always been one to want to make things work. I feel this way about mechanical systems, team dynamics, and even societal issues. Growing up I always knew I wanted to be an engineer because I saw the role of an engineer as a chance to face true challenges and simply make things work. Whether something is broken or needs improving, an engineer has an opportunity to use their creative super powers to bring meaningful things together to create a place that is better for everyone.

2. Are you involved in any school or community activities?

I am the Vice President of Mentorship and External Relations for the IDEAS Entrepreneurship club and the chair of the sponsorship and programming team for SJSU’s Conference for Engineering Diversity. In each of these roles I love learning more about being an active leader and expanding my own network of other SJSU students.

3. What is your dream job?

My dream job is being a leader of an exciting company in the transportation space. I want to bring people together to create sustainable solutions to the <5 mile commute.

4. What advice would you share with your freshman self?

Say yes to everything, try everything, sign up for everything. You’ll find time for what’s most important.

Fernando Sánchez López I Computer Engineering
Loyal I Resourceful I Trustworthy
MESA Scholar

1. Why did you choose your major?

Since I was a child, I have been attracted to games that helped me explore my imagination, like construction bricks or magnets. I love games that challenge me to think critically, problem solve, and broaden my imagination. I have always asked myself why and how everything works and functions: How does a phone work? How can I be typing right now, and simultaneously see the words on the screen?

My curiosity grew when I received my first laptop as an eight-year-old boy. My grandfather bought it to help me with my homework. I was completely fascinated by the intricacies and functions of the technological device. In Mexico, I was one of the first among my community to get a laptop, and was grateful for the opportunity. It simplified my life with easier access to illustrations and allowed me to type my work. It proved to be a resource in assisting with my studies.

From there, my passion for technology has only grown.I became passionate about technology and how it works. I now identify and understand the code of a webpage whenever I accidentally open the source control while browsing. I keep an eye on updates for the new tech gadgets, especially from Apple, to see what new functions they have.

I want others to have that same experience, that sense that technology can simplify a lot of things and it can be used for creating good in society. For example, it helped me stay connected to my mom when we were in two different countries and I stayed with my grandparents since I was 3 years old. Now, it has helped me stay in touch with my family back in Mexico since I migrated 5 years ago to live here with my mom.

2. Are you involved in any school or community activities?

As of right now I have involvement in the MESA Engineering Program (MEP) at SJSU, SOLES, and I have applied to be part of one of the Associated Students Committees. I chose to join these organizations because I feel that the most fruitful source of knowledge comes from hearing others' experiences. These organizations allow me to express myself, share my opinions, share my story, as well as having the opportunity to hear from others and learn about their journey and aspirations. I like to think that we all are influenced by the people we surround ourselves with, and organizations like the ones I am involved with are a great way to connect with others and meet new people.

Further than that, I was also part of the student government at my community college for 3 years, starting as a senator and finishing being elected as the president. That experience taught me the significance of getting involved and making the most out of all the resources on campus. All of that has allowed me to try and make the most out of the campus here at SJSU, its community and the different organizations that are in here.

3. What is your dream job?

As I mentioned before, Apple is one of the tech companies that I have my eye set on. Since I decided what I wanted to study and dedicated my life to, I set my goal to work at Apple as an Engineer and switch places from attending a WWDC every June or an Apple Event every September, to be one of the speakers there. I want to be that someone that makes a kid or, in fact, any person to push themselves and see that it is possible to achieve your dream, just like the speakers that look like me have done for me.

I believe that representation matters and what we show and consume in the mass media that surrounds us every day is important. I believe that I am able to achieve my dreams because more often I see people that look like me in leadership positions. People that sound like me or that are ESL (English as a second language) push me to not be afraid to speak out in the literal sense of the word. I am no longer afraid of the what ifs, or the mistakes, or the barriers. No barrier or obstacle is too strong or too big if you set your mind to go over it and continue with your journey. I want to do that, I want to inspire others to feel like they can succeed in anything they set their mind to.

I want to apply everything I have lived and experienced outside Engineering to my workspace. Social justice, humanities, racial equity, and intersectionality should not be limited to one discipline and be thought of as separate. All of those concepts, and others related to them, are part of every human being's life and we should all be thinking about them in everything I do. I plan to do that in any enterprise that I work with, and I like to think that I am already doing that with my community at school, at home, and in my neighborhood, and in everything I do. Engineering and Social Justice are not two different disciplines, it is all interconnected just how the different components in the computer work to make our devices function.

4. What advice would you share with your freshman self?

Some advice I would share with my 1st year self would be to not be afraid to ask questions to strangers. Everything will be confusing given that it will be my first time taking classes fully in English, the educational system is completely different, the resources and the campus in general are both different no matter if it is Community College or University, it is all different from Mexico, so questions are allowed and encouraged.

Furthermore, I would also express that there are going to be stressful times and situations that will come out of nowhere and that are going to change your life drastically. Somehow you cannot avoid them but instead learn to sail through all of the problems to find a solution and to be able to learn from those situations to better yourself.

Additionally, I would tell myself to embrace the chaos and the mistakes and the failures. All of those teach you something, and they are not evidence that you cannot succeed. On the contrary, they are evidence that you are trying and that you are working towards your goals.

Finally, I would say to myself to enjoy the ride. Through community college and university you will find the right connections and the right people that will become your best friends and your main support. In the dark times, you will have people by your side and people showing you support. You are not alone, you were never alone, and you will never be alone.

Kaeleen Sapelli I Aerospace Engineering
Determined I Curious I Passionate
SVES Scholar

1. Why did you choose your major?

I knew I wanted to do engineering for most of my life but I never thought it would be aerospace. I never had any interest in space, it always felt like a closed field to me. It wasn't until I had an amazing astrophysics teacher in high school, that I found a topic I enjoyed. Her excitement as a teacher and her ability to make space approachable are the reasons I even considered pursuing aerospace engineering.

2. Are you involved in any school or community activities?

My family runs a charity car show called Motor 4 Toys. I've spent most of my life working with the charity and as I've gotten older I've taken on more and more responsibility and it's given me the chance to work more closely with my mom. One of the best parts of the charity is seeing how much people enjoy helping, it makes them happy to help and seeing that makes me very hopeful. Each year I get to see the community we can reach grow.

3. What is your dream job?

My dream job would be to create understanding. I want to create tools that will increase our understanding of space, but benefit more than just the aerospace community. In the past the push to explore space led to innovations that were essential to space but extremely beneficial to life on Earth. I want my dream job to have me continuing to learn and design with more than just space as a consideration.

4. What advice would you share with your freshman self?

I would tell freshmen to put myself out there more and to take every opportunity. I would say to always ask because the worst that can happen is someone tells you no.

Jose Luiz Sarabia Torres I Mechanical Engineering
Persistence I Determined I Self-Motivated
MESA and Jabil Scholar

1. Why did you choose your major?

From a young age, I always knew I wanted to pursue a degree in Engineering. Innovations in Silicon Valley fuel my interests and motivate me to contribute to the advancement of technology in society. One may compare Engineers to doctors, as they analyze structures and silently save lives. Why Mechanical Engineering? To begin with, I enjoy mathematics and am fascinated by physics concepts. Understanding fluid behavior under certain conditions and heat transfer are

topics of interest to me. In addition, applying our academics to real word problems becomes satisfying as an Engineer. As Engineers, we are constantly learning about the world around us, and is the primary reason why it makes me ecstatic.

Finally, I aspire to advocate for diversity, equity, and inclusion in research within Engineering. In the field of Engineering, there is a lack of representation among underrepresented communities. As a Hispanic, I realized the endless opportunities in Engineering and am fascinated by the projects available. My mission is to introduce these underrepresented students to the field and get them one step closer to contributing to the advancement of technologies. That is my passion. I want to see individuals from diverse backgrounds pursuing a degree in Engineering and participating in research.

2. Are you involved in any school or community activities?

I am fortunate to be part of the SJSU College Corps. As a College Corps Fellow, we provide programming enrichment to underrepresented low-income students in the city of San Jose. Through the program, fellows engage 3rd to 6th graders in programming enrichment activities and introduce them to the endless opportunities in STEM. In addition, as fellows, we serve the community by tackling food insecurity, education inequity, and climate change. By volunteering at Second Harvest, SJSU Food Pantry, Reading Partners, and the numerous organizations across Silicon Valley, we contribute to the well-being of our community.

As a first-generation Hispanic in Engineering, it has been a journey with multiple challenges. Growing up, I was a native Spanish speaker, and learning English as a second language became challenging. My family has always supported me mentally, emotionally, and physically; however, the reality is they don't know the college process. My parents enrolled me in the Boys and Girls Club of the Peninsula, where I obtained valuable opportunities to improve my English proficiency and participate in STEM extracurricular activities. I am grateful for the mentorship from the mentors, volunteers, and staff for guidance through my academic journey. As an individual once in their shoes, I can use my wealth of knowledge to invest in the young generation of Silicon Valley.

3. What is your dream job?

After completing my Bachelor's degree in Mechanical Engineering at San Jose State University, I will pursue a Ph.D. On February 5th, I obtained the opportunity to be part of the Stanford Engineering Research Introductions Program at Stanford University and became a SERIS scholar. The program aimed to introduce underrepresented students to the endless opportunities in research at Stanford University and gave students knowledge of a wide range of possibilities within the School of Engineering. The program exemplified my passion as I plan to advocate for diversity, equity, and inclusion in the field of research. As a first-generation Hispanic in Engineering, the reality of being the first in my family to attend college has been a challenging process to navigate. Despite the challenges, support programs have guided me in the right direction. The Educational Opportunity Program (EOP), MESA Engineering Program (MEP), and the Stanford Engineering Research Introductions Program (SERIS) have motivated me to continue my journey as an Engineer.

With the knowledge accumulated through my undergraduate career, I will invest in the underrepresented community in Engineering by introducing them to research at a young age. It allows students to gain hands-on experience and contribute to the advancement of society. As for my dream job, I aspire to advocate for research involvement in Engineering. I will accomplish this mission by allowing students the opportunity to work alongside professors, undergraduates, and graduates. As students from underrepresented backgrounds, the majority lack exposure to research. I plan to fill the gap of uncertainty and educate these students on possible projects they can contribute to throughout their academic careers.

4. What advice would you share with your freshman self?

A piece of advice to my freshman self would be to emphasize involvement on campus. For the Fall semester, I am back for in-person instruction, and it has been a phenomenal experience. Being able to see people and physically interact with them allows for social networking. On top of academics, my goal is to become actively engaged in student clubs within the College of Engineering. Spartan Racing and the Society of Latino Engineers (SOLES) are two organizations on my priorities. The engagement opens opportunities for scholarships, networks, experience, and meeting new people with similar interests. As a Hispanic in Engineering, knowing other individuals like myself through SOLES pushes me to succeed academically and emphasizes the idea of "Si se puede."

One piece of advice I want to highlight is the interaction with your professors. These can occur during office hours, after class discussions, or in conversations in the hallway. Not only can professors support you in the class, but they obtain a wide range of connections. Also, they can write a letter of recommendation on your behalf for a scholarship, internship, or graduate school. Professors will support you with anything or guide you towards resources; however, you MUST speak up. If you don't speak up or express your concerns, nobody will be able to reference you towards resources available.

Madhav Sharma I Electrical Engineering

Curious I Determined I Ambitious

Future of Silicon Valley Graduate Scholar

1. Why did you choose your major?

Growing up in an electronic age, I was curious in understanding the concepts and knowledge behind making the technology. High school physics was the first time I was introduced to engineering concepts. The subject of physics was always interesting to me, but I was more fascinated by the theory of electricity. Once I learned the vast application of electrical concepts I was drawn to the subject of electrical engineering.

2. Are you involved in any school or community activities?

I am involved in cultural activities which allow me to stay grounded in my roots and also help shape my morals and values. I have also been part of the Spartan Hyperloop and SJSU bridge

engineering club where I have had the opportunity to meet other engineers and work on relevant projects and develop my skill set.

3. What is your dream job?
My dream job would be to work in the Aerospace industry. Astronomy is one of my passions as well, and it would be interesting to be able to contribute to space exploration and work on the different technologies we send to space. In terms of contributing to society, I think working on space technology would help with climate change and push the limits of what humanity can achieve.

4. What advice would you share with your freshman self?
My advice would be to create a friend group that can push each other to reach their max potential but at the same time a group you can have fun with and escape the stress of the workload. Joining engineering clubs where many students are similar majors is a great way of making friends.

Kerry Smith I Civil and Environmental Engineering
Driven I Open-minded I Leader/Entrepreneur
Marvin and Anna Jean Sheets Scholar

1. Why did you choose your major?
Growing up as a brown-skinned, bi-sexual, multi-racial female, born in England... entering the field of Engineering was already going to be a challenge. What was the most difficult though was the lack of family, support system, physical and mental health issues (including depression & anxiety) and no financial stability. I rarely qualified for financial aid because my father (who I had little to no contact with most of my life) made too much money so I often had to work multiple jobs to get by.

2. Are you involved in any school or community activities?
I was the president of The Engineering Club and creator of The Women In Stem & Entrepreneurship Club at Santa Rosa Junior College. I volunteered with GRID Alternatives, Big Skills Tiny Homes, and much more. In 2020, I attempted to start my own non-profit organization called Park Keen Community which serves students by providing resources to find affordable housing, printing, rental computers, and more. I graduated from NextGen Trades Academy and consider most of my success this far from my partner (Kelvin Gonzalez), Conservation Corps North Bay, and The LIME Foundation.

3. What is your dream job?
Environmental Engineering & Philanthropreneur

4. What advice would you share with your freshman self?
Never give up. It is ALWAYS worth the work you put in.

Roshan Thomas I Chemical and Materials Engineering

Positive I Playful I Trustworthy
Alumni Dean's Scholar

1. Why did you choose your major?

Coming into college I narrowed my major choices down to Mechanical Engineering and Materials Engineering because simply I wanted to innovate. I faced a tough phase during the height of the pandemic, and as a result, had very little motivation to see into my future and hope for an engineering career where I could innovate. Thankfully, now having come out of that period, I now am more passionate about discovering such a career for myself, and am excited to find opportunities at SJSU which will allow me to do so.

2. Are you involved in any school or community activities?

I am part of a faith-based club on campus known as Cru, where I have found a great community of people to go through my college experience with. I was also involved in a research team last semester, where the focus of the investigation was centered around the development of solid-state lithium batteries. This was a wonderful experience for me, as it allowed me to really witness first hand the experiences that someone in the Materials Engineering industry might be involved in during their career.

3. What is your dream job?

I would love to innovate and help create things that are of benefit to society. One area that has really captured my interest would be the field of transportation. As our world becomes increasingly interconnected, the demand for faster and a greater variety of transportation options seems quite apparent. I would love to participate in industries that seek the development of alternative transportation options for long-distance travel, as compared to current options such as flying. I think ideas to develop high-speed ground transportation systems seem extremely interesting to me and would be extremely valuable in a state like California.

4. What advice would you share with your freshman self?

I would definitely say be more confident to reach out to clubs in order to start building a meaningful academic experience at SJSU. Also, reaching out to friends and taking more time out to spend with them has proved to be something I cherish, and I would loved to have done that more. Lastly, to have asked multiple advisors, be they professional advisors or peers for tips on how to make the most of my time at SJSU; after all they could tell me about what worked/did not work for them.

Phuc Trinh I Industrial & Systems Engineering
Dedicated I Technologist I G.O.A.T.
Alumni Dean's Scholar

1. Why did you choose your major?

As the first generation in my family to go to college, I had to figure out many things myself since no one in the family was able to advise me. When I was at SJCC, I met a great advisor who

helped me a lot. I found out that I won't go far by myself, so I used the Discord platform to create a supportive system. My slogan has been "Don't leave anyone behind."

2. Are you involved in any school or community activities?
I currently work part time and take full time classes. Most of my community activities are online. I volunteer at the Department of Veteran Affairs in the Office of Information and Technology, Act Now Education - a non profit organization to help transition military members to civilian life.

3. What is your dream job?
I want to be a Penetration Tester. I want to help firms stop cyber attacks, security breaches, and protect others from being exploited in the digital world.

4. What advice would you share with your freshman self?
Be dedicated, do internships to gain your own experiences, ask questions, and tell your own story.

Pierce Tyson I Interdisciplinary Engineering
Leader I Intuitive I Empathetic
Harry Wong Scholar

1. Why did you choose your major?
I chose Interdisciplinary Engineering because I wanted to make an impact in my community by being able to apply myself to solving any problem. Growing up with my mom having brain surgeries and health challenges, and different friends struggling with health as well, not having the ability to change anything made me realize my desire to bring positive change to those around me. I discovered that I can't take away other people's pain, however, and that real change comes from developing the tools that can (at least better than I can). With my dad being a chemical engineer that makes medicine for people, I wanted to follow in his footsteps in using my talents of math and leadership to build up good technology.

2. Are you involved in any school or community activities?
I'm involved in my local church group where I help lead the college students. I lead a small group in discussion about the hardships of life, dreams, and God and help many with different kinds of emotional and mental pain. The vulnerability and authenticity I've been able to bring to our group has allowed people to be real themselves, and it has allowed for people to completely turn their life around. This summer I was a mentor as well for some high schoolers by guiding them to grow in their confidence and self-esteem.

3. What is your dream job?
My dream job is to be a project manager at an engineering company that does good for the community. I would love to lead a group with my growing technical and leadership skills and be effective. Recently, I've wanted to specialize in Civil Engineering and help bring change in that field, whether it's redesigning traffic, helping build better cities, or anything along those lines.

4. What advice would you share with your freshman self?

I would tell my freshman self to put himself out there! Although it was during the prime of the pandemic, really putting yourself in a position to be known and network with people is essential in success, but also in meaningful relationships. It has something I have grown in myself, but freshman-me was not good at it.

Levi Vary I Aerospace Engineering

Determined I Team-player I Accountable

Qualcomm Scholar

1. Why did you choose your major?

Similarly to many engineers, I have been fascinated by science, physics, and technology ever since childhood. Space exploration particularly resonated with me because it gives us the opportunity to learn more about our universe and develop new sciences that will help improve the lives of all humans. I chose to pursue an aerospace engineering degree because it allows me to learn about propulsion, aerodynamics, materials, structures, manufacturing, and so much more. The aerospace degree will prepare me for all the different kinds of work that are being done to push our scientific progress further, and I hope that getting my degree, even though it may be difficult sometimes, will allow me to contribute to this deeply meaningful work.

2. Are you involved in any school or community activities?

After transferring to SJSU I enrolled in the ASME club, which has been an absolute joy. It's a wonderful club that has given me many opportunities to work with and learn from my peers as well as design and produce some amazing projects. The innovative work and team skills that are created in this club makes me so thankful for my membership, and I hope as I continue throughout my education I get to bring these perks to all of our new members.

3. What is your dream job?

My favorite part of engineering is research and development because those are the jobs where we get to feed our craving to both learn more, and use what we learn in creative ways. Coming up with solutions to our problems is at the very heart of engineering, so R&D would have to be my dream job. I understand that R&D can be a broad field without listing a specific topic, but as a human there are so many interesting things to work on that picking just one specific thing to research and develop would be almost limiting. Many of my peers would dream about working on something that goes into space or alongside F1 race car teams, but personally I dream of working on projects that will help change the world. Sure, that can include sending stuff into space, but after working on projects like prosthetic development with my club, or seeing the hardware going into future wearable tech, I think it's more important for me to focus my energy on R&D for tech that improves people’s lives in both outer space and our inner space.

4. What advice would you share with your freshman self?

I'm very proud of my accomplishments as a freshman, but if I had to pick one piece of advice I wish I had back then, it would have been to pace myself more, or to schedule things better. My freshman year was wildly erratic, with dramatic changes in my living situation, the coronavirus

pandemic making planned classes become unavailable at my community college, deaths in the family, and much, much more. There were points in my freshman year where I was taking more than the recommended amounts of classes, as well as working a full time job. I did wonderfully during this time, but it was exhausting. Just the very next semester I wouldn't be able to take all the classes I needed, and I wouldn't have as much work, so I'd be left feeling like I wanted to do something more with my life. So, with all this in mind, I think if I could share advice with my freshman self, it would be to create a healthy but adaptable schedule to help me reach my goals.

Samuel Vazquez Lozada I Computer Engineering
Intelligent I Kind I Respectful
SVES Scholar

1. Why did you choose your major?

I chose to study Computer Engineering since I've always been passionate about computers and the importance of technology in our society. Another reason that made me choose this major was the fact that you don't hear much about Latinos in the engineering department, which made me realize that I have the potential to represent my Latino community and show other people that race does not determine who a person is. Many times we need to sacrifice things to become the better version of ourselves and represent those who were not able to make it.

2. Are you involved in any school or community activities?

I am not participating in any community activities at the moment, but for 2 and a half years I was helping at my local church, Calvary Chapel San Jose, in the Childcare area as a care assistant to 3-4 year olds. I chose to help in this area since I like working with children, as well as my interest in seeing how technology impacts children from a small age in comparison to older generations who were not exposed to technology and media at that age. My goal while working there was to give something back to our own people as well as to try to learn how recent times have really impacted how children and our society behave after a global pandemic.

3. What is your dream job?

I would love to have a chance to work in a large Tech company. In particular it would be interesting to work as a hardware designer or developer of a program, which could be very interesting. An example of this could be working for NVidia or AMD developing and designing new computer parts such as graphics cards and microchips for computers. An existing problem that I see in the industry could be people being unable to afford prices for a product that has good build and performance quality. Therefore, I plan on contributing in a plan to make affordable tech that works and has good quality for the benefit of my community and also the economy of this country.

4. What advice would you share with your freshman self?

I think that one piece of advice I have for any freshman, and myself as well, is to get involved in a lot of internships and student clubs that will bring you many opportunities in the future. Also, take advantage of any opportunity given to you, for the benefit of our community here in the

Silicon Valley, as well as for the next generations to come that will be involved in this area of engineering.

Maxim Vovenko I Electrical Engineering
Driven I Enthusiastic I Energetic
Emma E. Legg Memorial Scholar

1. Why did you choose your major?

I choose Electrical Engineering as my major to be able to study the field I love. Ever since I was a child, I have enjoyed deciphering the mysteries of the gadgets around me, tearing them down and making them work. I found the magic boards and wires that were in them very interesting and wondered how they made everything work. Now the mystery has been unveiled, we know the magic boards are printed circuit boards and the black boxes are silicon chips. Now for the new challenge: how to make them work better and in what new useful ways can we apply them?

2. Are you involved in any school or community activities?

I have participated in a couple of activities. For the last 2 years I was part of the SJSU Robotics team helping develop and refine the electrical system of the rover. In that time, I have been able to practice the skills I learned in my classes as well as work with other students to help refine our skills together. I have learned many important skills in communication and time management.

3. What is your dream job?

My dream job would be to work on space grade hardware, whether it be satellites or laser communications. These challenges are some of the ones on the forefronts of engineering complexity and as such contain many interesting and difficult engineering problems within, something that brings endless joy to my life. It is also one of the challenges that is both well known and yet with many unknowns, and I would prefer to be one of the first to know.

4. What advice would you share with your freshman self?

To my freshman self the biggest advice I could give is pay attention in all your classes. Each class from English to Communications to Chemistry and History has important information within it. You are not going into the vacuum of space devoid of human beings (Except the 10 in LEO), the skills taught in those classes are critical for your survival and for you to thrive in society. Also Handshake and meetings with company reps are the best way to get an internship.

Hong Vu I Computer Engineering
Kind I Patient I Determined
Jane G. Evans Scholar

1. Why did you choose your major?

There are different majors available for college students to choose from nowadays. A popular choice among many is Software Engineering. I have decided to pursue this major, but not

because it is popular or trendy. It is because of my passion for this field, its positive impacts on society, and the opportunity for success in my career.

Throughout my life, I have seen how technology constantly changes the world. I have been in love with technology since I was first introduced to a computer by a sixth-grade teacher. I was amazed at all the software running inside the computer and how it could help us with our daily lives. I knew from that moment that I wanted to become a Software Engineer. However, life was tough then, and I could not afford to follow this dream. Now that I am a college student living in Silicon Valley, it is the perfect opportunity to follow my dream.

Moreover, Software Engineering has many positive impacts on society. The power of software lies in its ability to help people in their everyday lives. We can see how software has made the home become much smarter with internet-connected doorbells, sprinkler systems, or security cameras. These systems, combined with the software that they run on, allow us to live in a smarter, safer way. Furthermore, the software shows its true power when used in medical systems to find the cure to diseases or to forecast climate trends more accurately to prevent natural disasters. All these applications mean that the field I have chosen to study has many benefits not only for myself but for other people around me.

2. Are you involved in any school or community activities?
I was a volunteer at Sacred Heart Community service.

3. What is your dream job?
My dream job is to be a software development engineer. To achieve this goal, learning at school is not enough. I have to do many projects independently and learn new technologies to achieve them, such as AWS services.

4. What advice would you share with your freshman self?
For me, getting an internship is very important. It helps you understand your role in your major and decide the path for you to go.