

Supporting Student Veterans at UC San Diego

Jack Bae had just two quarters left before he earned his undergraduate electrical engineering degree at UC San Diego. That's when the financial pressure hit a boiling point.

"I had some financial issues and I thought I couldn't keep going. I already had a student loan, so it was stressful. Plus, I had part time jobs; I was miserable," Bae said.

He decided to put his engineering degree on pause and join the Army for five years, with the intention of using the GI Bill after his service to help pay the tuition for his remaining quarters. That was just over five years ago, and he's now back at UC San Diego in the final quarter of his bachelor's degree in electrical engineering. When he returned, Bae received support from the Philip and Elizabeth Hiestand Scholarship Endowment for Transfer Engineering Students.

For Jeffrey Sei, a Marine veteran and aerospace engineering student, the decision to serve in the military was about getting more life experience under his belt before choosing whether or what to study.

"I was actually supposed to go to school in LA straight out of high school, but honestly I had no clue what I wanted to do and I was like 'I'm just going to do this electrical engineering major just because my uncle did,' but I had no motivation for it," Sei said.

"I wasn't really stable in life at the time. I didn't have a stable place, didn't really have any income. And I wanted that family bonding experience which I always heard a lot about especially in the Marines."



Jeffrey Sei

After four years of active duty and three years as a reservist serving as an aviation ordinance technician—maintaining the weapons systems on the F18 aircraft, including bomb racks and missile launchers—Sei is now an aerospace engineering student at UC San Diego, planning to graduate with his bachelor's degree in 2021. He received the Gregory A. Chauncey and Naomi C. Broering Endowed Engineering Scholarship Fund for Combat Veterans.

Bae and Sei are two of more than 430 military connected students at UC San Diego, a third of whom study engineering. They both received scholarships which helped to cover general living expenses that the GI Bill doesn't cover.

"The scholarship helped me out with more general things; I know I have this much extra to use on food or stuff I need to live off," said Sei. "I'm thinking of getting a printer because in one of my classes the teacher wants hand-written or printed notes, so I'm going to have to print a million notes for midterms, and the scholarship money will help me get a nice printer. I didn't grow up in a wealthy environment, so every little bit helps."

Gaining experiences in the field and the classroom

When Bae returned to UC San Diego, he was accepted into the electrical and computer engineering BS/MS program, meaning he'll spend one more year at the Jacobs School and earn his master's degree in electrical engineering.

"After I came back, I realized I feel really different at school because now I'm not worried about financial issues and I can just focus on school. That feels very satisfying. Even doing homework I was so happy when I came back! I was awaiting that moment for five years," Bae said.



Jack Bae

Bae wanted to serve as an electrical technician in the Army, but that billet wasn't available when he enlisted, so he opted to work as a mechanic. This often involved working on the transmission and engine of large trucks or tanks.

His first duty station took him to Korea with an air defense artillery unit.

"One time the radar was down, and some civilian guys came to fix it, so I talked to them a lot and realized they were actually electrical engineers," Bae said. "I was surprised because when I left school I was focused on the electronic circuits depth, so I had never thought about an electrical engineer working in this kind of defense field. That's the reason why when I applied for the BS/MS program I applied for the signal and image processing track because I wanted to learn more about that area."

Bae is continuing to discover just how broad the field of electrical engineering can be, as a paid systems engineering intern at local medical device company Instrumentation Laboratory. He's helping them build a device that measures blood clotting levels, to help doctors and nurses know how much of a blood clotting drug to administer to patients.

“I never thought as an electrical engineer I’d be working at a medical device company, but I like the company and the people.”

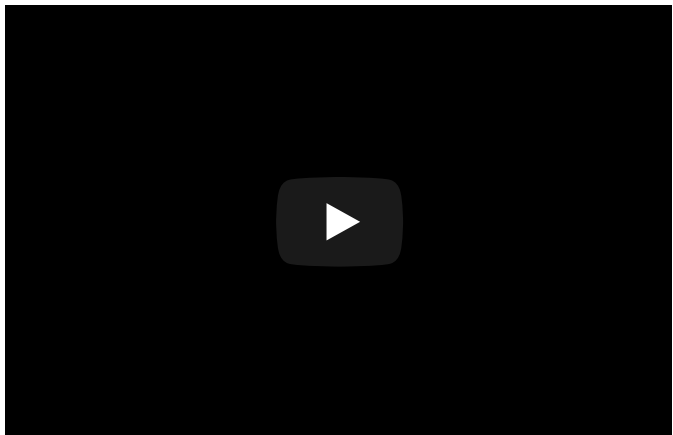
For his part, Sei hopes to apply his aerospace engineering degree to the space sector; in particular, he’s eyeing a position on NASA’s Artemis program.

“I always wanted to help us explore space further, achieve greater goals in space. I think that’s the main reason I decided to go back to school for aerospace engineering because I found something I actually liked to do, unlike when I first was applying for school, I just picked electrical engineering because that’s all I knew.

“That’s one of the things I’m really excited about,” he said. “When I hear about it, I can’t believe we’re doing this. It excites me that we’re trying to go back to the moon and build a base.”

Supporting student veterans

One area on campus that has spearheaded efforts to support these students is the [Student Veterans Resource Center \(SVRC\)](#), which focuses on providing services and programs in collaboration with campus partners to support military connected students to achieve personally, academically and professionally.



“We are grateful to our campus community for their continuous support of our student veterans,” said Maruth Figueroa, Assistant Vice Chancellor of Student Retention and Success. “It is through these partnerships which honor the strengths and tremendous life experiences of our student veterans that we demonstrate a truly student-centered approach to education.”

“I want the Jacobs School to be the engineering school of choice for veterans and other military-connected students,” said Albert P. Pisano, dean of the UC San Diego Jacobs School of Engineering.

“I am proud of our network of industry partners, the various student organizations providing mentorship programs with alumni, and the people who are stepping up to increase our ability to support veterans and other military-connected students through scholarships and other initiatives,” said Pisano. “We are building a Veterans Thought Leaders group here at the Jacobs School to work with me on the academic, personal and professional development and support of military connected engineering students.”

While Sei and Bae acknowledge the sacrifices they made to serve, they both say it was a very positive experience overall.

"My experience in the Army was really good, serving the country and meeting people I would have never met," said Bae. "It was a great experience."

"I feel like it definitely helped mature me as a person," Sei said. "Not only with the leadership, but also back then I was extremely shy, and it helped me break out of that shell."

Keep up with campus news by subscribing to *This Week @ UC San Diego*