

An Engineer's Summer in Lisbon

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As a recent graduate from Utah State University, I am constantly thinking about how I can utilize my new degree (that hasn't even arrived in the mail yet) to achieve the goals that I set for myself as a freshman. Luckily, around my sophomore year I realized that if I wanted to reach my post-graduating goals, I needed to do something extra besides just going to school. As an engineering student, doing anything extra than school seemed daunting and quite nearly impossible. I had time to eat, study and engage in a weekend social activity every other week. I also knew, however, that I wanted to make my hard work worth something once I graduated, so cautiously I started to engage in out-of-class activities. I went to SWE events, attended a few ASME meetings, and started doing research with a professor. These extra activities got me internships, the opportunity to attend a research conference and exposed me to the idea of working internationally as an engineer. Ultimately this led me to the thought, "What if I studied abroad?"



Thomas Heaps is a recent engineering graduate who spent time in Lisbon, Portugal. He now works for the Prysmian Group, a leader in energy and telecommunication cables.

I didn't know anyone who had studied abroad, nor had any professor or classmate even mentioned the idea of studying abroad. It was a foreign concept and yet it also felt familiar. At Utah State, I enjoyed being taught by a highly diverse faculty of engineering professors who all brought their international expertise to the classroom. I learned about dams being constructed in Brazil, the

craze of solar water heaters in China and how designs for nuclear power plants in France are being implemented here in the U.S. I wanted to gain my own academic experience internationally and the global perspective that so many of my international professors demonstrated.

Gaining a global perspective is important because as engineers we are expected to help solve the world's problems — Problems that have profound global impact and need to be solved using international knowledge and methods. In stark contrast to this ideal held for engineers, the stereotypical engineer tends to avoid interacting with anyone or anything outside of their bubble, effectively narrowing that engineer's perspective and ability to solve problems. Study abroad provides a perfect opportunity for engineers to start developing a global perspective and in the end, be better at what they do. In pursuit of this goal, the first problem I faced was trying to figure out how to pay for a study abroad.

Studying abroad is expensive. Luckily, governments, schools and private individuals all want you to study abroad and are willing to pay for it. I applied for the Gilman Scholarship to pay for a potential study abroad. The Gilman Scholar program is a nationally competitive scholarship that is awarded to students in financial need who want to study abroad. Additionally, when awarded the Gilman, students are given a government job non-competes for a year after they finish their program. This means you can get inside help to get that job at NASA you've been dreaming about all of undergrad. Once I received the Gilman, I was able to move forward with a study abroad and not worry about how I was going to pay for the whole experience. My chosen study abroad was the Council on International Educational Exchange Summer in Lisbon program.



The Italian Baroque sculptures in Marfa National Palace and Convent in Portugal were created by sculptors Jose de Almeida, Claude de Laprade and Giovanni Antonio da Padova.

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I arrived in Lisbon with my single backpack and took the subway straight to the university. I signed up for a home stay with a host family and was going planned to meet them at orientation. After orientation I was introduced to my host family and walked five minutes with them to the apartment that I would be staying in. The youngest had given up his room for me and was now bunking with his older brother so that I could have my own personal space. I was excited but nervous about the coming summer semester. The classes that I had decided to take were Communitive Portuguese and Portuguese Gastronomy, the study of Portuguese food and culture. These classes were a big step away from my typical engineering courses, but I saw the classes, along with the study abroad, as an important aspect of developing a global perspective.

While I was abroad, I tried to immerse myself in the Portuguese culture. I ate dinner at nine o'clock, used public transportation, went to important historical sites, developed a love of cod and read a collection of poems by a famous Portuguese author, Fernando Pessoa. Within the poems, Fernando Pessoa paints Portugal as the spear head of Europe, the center of the Christian faith and a powerful nation. Honestly, I had always thought of Portugal as a country past its prime, but once I tried to view Portugal from the eyes of the Portuguese, I began to see the potential that Portugal still has. I learned that in terms of my favorite engineering topic, renewable energy, Portugal is a front runner in integrating renewable energy systems and one of the only countries in Europe unaffected by the shutdown of the Russian pipeline. My time in Portugal taught me that many of the solutions for engineering problems in the U.S. can be found in previous successes and failures of the worldwide community.

My time abroad inspired me to look for ways to work internationally and continue to learn from the global engineering community. I am currently working at the Prysmian Group, the world leader in energy and telecommunication cables. At the Prysmian Group I contribute directly to the energy transition, my engineering passion and as a part of their graduate program, I will be moving to Europe for three years where I will work with and learn from engineers around the world. Studying abroad has helped shaped the trajectory of my career and made me a better engineer. Who knows what it will do for you?

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