By Ioana Patringenaru   May 29, 2014

Brina Lee

A Snapshot of Success

UC San Diego alumna first woman engineer at Instagram

When she first applied for computer science internships, Brina Lee, who had a bachelor's degree in communications from UC San Diego and a background in marketing, felt like she'd hit a wall of rejection. Now fast forward just two years, and with a master's degree in computer science from UC San Diego under her belt, she is the first female engineer to have been hired at Instagram, the popular image-sharing app.

How did she do it? Lee became one of the star tutors for computer science teaching professor Rick Ord and worked her way up to a teaching assistant job for him. She finished her master's degree in computer science in just four quarters and interned at Google and Facebook. The latter hired her in April 2013. After completing the company's boot camp, she chose to work at Instagram, which Facebook acquired in April 2012.

The company was a good fit for Lee, a photo enthusiast who likes to go on photo walks on her days off. Since she started working there, she has been making a special effort to compose her shots. "There is so much creativity and attention to visual details here. I love it being a part of my daily life," she said.

Being the only female engineer on the team wasn't at all that different from being one of a handful of female computer science graduate students, she said. She believes she brought a different perspective. She was working on the team that builds the tools to show ads on Instagram. "Four more women have joined the team in the past year, not including some of our female interns that had joined and will be joining," she said.

The path to Instagram

Lee's road to her current Silicon Valley life was a somewhat winding one. She was initially interested in marketing and wanted to minor in computer science. But the computer science class schedule wasn't flexible enough to do so in four years, and Lee didn't want to spend more time in school—and out of the workplace.

After graduating from UC San Diego with a degree in communications, Lee worked at a start-up and was closely involved with the company's website development. Her interest in computer science revived. She also realized that if she wanted to work in marketing in the tech industry, she'd need to know more about that area.

She went back to school in the evenings to take classes that her company paid for. Her first class was in C sharp and she did well. She landed a job as an interaction designer at Yahoo! But she still needed to learn more, so she enrolled in classes at UC San Diego Extension.

Finally, in 2010, she decided to quit her job and go back to school full time. The alternative would have been to get a degree online, but she didn't feel that would provide her with a strong enough computer science foundation. Instead, she enrolled in the master's in computer science program at the Jacobs School of Engineering at UC San Diego.

Ask what she learned here at the Jacobs School, Lee's first answer is persistence. "Rick [Ord] told me to keep trying" after she didn't land an interview for an internship, she said. Ord remembers things a little differently. Lee was already quite persistent before becoming his student, he said. "In a word: attitude," Ord said. "Brina has the right attitude."

Computer science at UC San Diego

Lee successfully took all prerequisite undergraduate computer classes while tutoring Introduction to Java and Discrete Mathematics as a volunteer. She then officially became a computer science master's student and a teaching assistant for the same Intro to Java class where she had been a tutor. This was her favorite experience at UC San Diego, she said. She learned how to better communicate, explain the issues, teach and mentor. "It's exciting to see a group of young minds learn something new and discover their passion for technology," she said. "I'm a huge advocate for everyone to learn how to code, no matter what industry they are in or will be in the future."

During her time at the Jacobs School, Lee also worked with computer science professor Ryan Kastner on a master's project. She built a wearable device called Droop, which helped identify bad posture. "It was 100 percent Brina's idea, and it spanned several computer science topics, including embedded systems, human-computer interaction, and mobile computing," said Kastner. "It also showed how computing can make an impact in everyday life."

Camaraderie was another thing Lee said she gained from the department of computer science and engineering. Many of her former fellow undergraduate and graduate students now work at Facebook and keep in touch. "The great thing about the Jacobs School is that we graduate as a team, and we still work as a team," she said. "We try to understand tech problems together."

The camaraderie goes beyond one company and extends to Silicon Valley as a whole. Alums see each other at birthday parties and weddings. "One team, one dream," she said.

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