

Education

University of California, San Diego

Expected Graduation: 2018

Computer Engineering (CSE)

GPA: 3.62

Provost Honors FA'14 – SP'15

Experience

Leidos Inc.

San Diego, SU '15

Technical Research & Development Intern

- Led a guided research effort on developing a secure, cryptographically based firmware update turret system for IoT devices. Extensively utilized embedded ARM Cortex devices, along with MMU optimization.
- Worked with senior engineers and implemented proof of concept for the over-the-air turret system. Communications secured with proprietary TLS/SSL libraries compressed and optimized for RTOS usage on Particle Photon boards.
- Penetration testing with Kali Linux and its installed tools: nmap, hydra, john the ripper, and more, on dummy servers and routers. Retrieved and cracked hashed data.

Projects & Activities

Students for the Exploration and Development of Space (SEDS)

FA '15

Astrodynamics team on Moonshot Alpha project

- UCSD chapter first undergraduate organization to design, build, and test a 3D-printed metal rocket engine.
- Used GMAT to calculate lunar polar orbit for 6-unit Cubesat satellite as a part of NASA's \$3 million competition.
- Also utilized NASA NAIF's SPICE observational geometry information suite for the solar system.

You See SD

FA '15

- Location sharing and graphing application that displays heat map of densely populated areas of UCSD campus, using location data from smartphones. Coded at SDHacks 2015, a one day hackathon.
- Utilized HTML/CSS, JS, some PHP with Google Maps API with MySQL server.

ECE Senior Device Design

FA '15

- Designed prototype concept of device that improves seniors' quality of life by automating the pill consuming schedule process. The device notifies seniors when to take medicine throughout the day.
- Utilized human-centric design philosophies, focusing on patient interaction throughout the process.

Personal Website

SP '15

- Used Bootstrap, Javascript, CSS, HTML to create a personal website in one night at UCLA's Hackathon.
- Serves as convenient link to my resume and relevant projects on-demand to anyone I meet.

SD Hacks

2014-15

Finance Team

- Worked with other student organizers to plan and make possible UCSD's first official hackathon.
- Responsibilities included securing funds for total more than \$300,000 budget. Personally secured \$10,000 funding.

Skills

- Experience with C++/C, Java, vim, git, SPARC, Linux VMs (Ubuntu, Lubuntu, CentOS), HTTP/CSS
- Network pen testing w/ Kali Linux: live port sweep, nmap scan, metasploit, dictionary attacks, hydra.
- Some familiarity with Javascript, Python, Bootstrap, Swift, MySQL, ARM assembly, PHP