

JEREMY CRUZ

SOFTWARE ENGINEER

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Education

University of California, San Diego September 2014 – June 2018
➤ Bachelor of Science in Computer Science and Engineering

Experience

Cubic Corporation June 2017 – May 2018

Software Engineer Intern

- Aided Nellis Air Force with development of **multi-threaded** live virtual combat training system
- Allowed system communication using **Distributed Interactive Simulation** protocol with **pcap**
- Helped monitor status via **packet sniffing** with **Wireshark dissectors** with core dump feature
- Established network security via **DHCP** server with static IP table using **Junos**
- Made mission monitoring possible via web interface running **Angular.js**

Engineers for a Sustainable World October 2015 – June 2018

Software Team Lead

- Led software teams in agile environment to contribute to global sustainability efforts
- Held scrum meetings to monitor progress, communicate goals and assign tasks
- Provided documentation, code reviews, and CI pipelines to ensure high quality releases

Projects

IoT Smart Fridge October 2017

- Addressed food waste problem by programming camera to keep fridge inventory in **MongoDB**
- Emulated smart fridge via **OpenCV** machine learning to recognize food items and keep inventory
- Satisfied consumer needs via warning messages of expiration and shortages with **Twilio**
- Awarded SDHacks 2017 **grand prize**

Solar Interact September 2016 – June 2018

- Aided visitors with navigation through interactive Android map utilizing **Google Maps API**
- Allowed watt management via **Bluetooth** controlled by **Arduino** to display on **Android** device
- Managed secure data communication between tablet and Arduino with multiple **threads**

Solar Chill September 2015 – September 2016

- Lessened carbon foot print with solar powered student lounge + charging station
- Proved cleanliness of energy production with **Arduino** driven dot matrix scrolling text display
- Achieved **14.98%** less carbon emissions via solar energy versus electrical energy

GUI Classifier March 2017 – April 2017

- Aided **machine learning** efforts with applet demonstrating classifier behaviors
- Wrote **Shell script** allowing user to install/ uninstall software on Linux/ Windows platforms
- Utilized decompiler to create UI components with educational graphics API

Managerial Applet December 2014 – January 2015

- Shortened and automated managerial labor at Church's Chicken with applet
- Accomplished reliable cash and inventory counts via **Java**

Crosscodes December 2017 – present

- Designed professional website using **Bootstrap**, **jQuery**, and **JavaScript**
- Documented vital learnings in blog

Skills

Languages: C, C++, C#, Python, Java, JavaScript, Lua, SQL, HTML, CSS, XML, Batch, Shell, VBScript
Frameworks: Angular.js, Node.js, REST, RAIL, CRUD, Bootstrap, jQuery, Socket, gRPC, pcap, KDIS
Tools: Visual Studio, PostgreSQL, Apache Tomcat, Firebase, Android Studio, Wireshark, Git, SVN
Platforms: Windows, UNIX, Linux, Junos