

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 live virtual simulated combat training system
- Allowed system communication using **Distributed Interactive Simulation** protocol with **pcap**
- Helped monitor training/ mission trends via **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 to contribute to global sustainability efforts involving solar energy
- Held weekly team 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

- Established interactive solar-related educational game at UCSD with UI components via **XML**
- 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

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 portfolio/ blog for business and insight with **Bootstrap**, **jQuery**, and **JavaScript**

Skills

Programming: C, C++, C#, Python, Java, JavaScript, Lua, OCaml, Prolog, SQL, Bash, Batch, VBScript

Frameworks: Angular.js, Node.js, Socket.io, Bootstrap, jQuery, gRPC, pcap, KDIS, OpenCV, Numpy, Scipy, HTML, CSS

Tools: Visual Studio, Android Studio, Eclipse, Wireshark, Travis CI, Virtual Box, Firebase, Git

Platforms: Windows, Linux, Junos