

# 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 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

- 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 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