

# 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

- Developed Live Virtual Simulated combat training system
- Utilized **TCP/IP** programming with **Distributed Interactive Simulation** protocols and **pcap**
- Implemented **Wireshark dissectors** in Lua with core dump feature
- Configured **DHCP** server with static IP table using **Junos**
- Developed web interface for live virtual training with **Angular.js**

**Engineers for a Sustainable World** October 2015 - present

#### Software Team Lead

- Contributed code to global sustainability projects involving solar energy
- Implemented **Bluetooth** communications between Solar panel, **Android**, and **Arduino**
- Designed standard I/O in **C** on **Arduino** driven dot matrix

### Projects

**IoT Smart Fridge** October 2017

- Addressed food waste problem by programming camera to keep fridge inventory in **MongoDB**
- Implemented machine learning algorithm with **OpenCV** to recognize food items
- Added feature to text user warning messages involving food inventory and expiration
- Awarded SDHacks 2017 **grand prize**

**Solar Interact** September 2016 – June 2018

- Designed interactive solar energy related educational game
- Programmed interactive Android map utilizing **Google Maps API**
- Implemented **Bluetooth** communication between **Android** and **Arduino** to display watt output

**Solar Chill** September 2015 - September 2016

- Designed solar powered student lounge and electronic device charger
- Implemented data output through **Arduino** driven dot matrix via scrolling text
- Calculated result of **14.98%** less carbon emissions via solar energy

**GUI Classifier** March 2017 – April 2017

- Implemented Java GUI app demonstrating **machine learning** classifiers
- Designed UNIX-compatible installation feature
- Used custom graphics API

**Managerial Applet** December 2014 – January 2015

- Implemented Java GUI app created for managerial purposes at Church's Chicken
- Fulfilled managerial tasks involving cash and inventory count with output variances
- Used custom graphics API

**Crosscodes** December 2017 - present

- Online portfolio/ blog via **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, TCP/IP, gRPC, pcap, KDIS, OpenCV, Numpy, Scipy, HTML, CSS

Platforms: Windows, Linux, Junos, MS-DOS, Visual Studio, Android Studio, Eclipse