# JEREMY CRUZ SOFTWARE ENGINEER

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igeremy-cruz

O idc011

## **Education**

# University of California, San Diego

September 2014 – June 2018

Bachelor of Science in Computer Science and Engineering

# **Experience**

## **Cubic Corporation**

June 2017 – present

## **Software Engineer Intern**

- Developed Live Virtual Simulated combat training system
- > Utilized TCP/IP programming with Distributed Interactive Simulation protocols and PCAP
- Implemented IEEE standard packet dissectors in Lua
- Developed web interface with Angular.js

**Solar Interact** 

September 2016 – present

#### **Software Team Leader**

- Designed interactive solar energy related educational game
- Programmed interactive Android map utilizing Google Maps API
- Programmed Bluetooth communication between Android device and Arduino

## **Solar Chill**

September 2015 - September 2016

#### **Software Team Leader**

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

## **Projects**

#### **IoT Smart Fridge**

October 2017

- Addressed problem of food waste by programming camera to keep fridge inventory
- 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

#### **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

## Skills

Programming: C, C++, C#, Python, Java, JavaScript, Lua, OCaml, Prolog, gRPC, Applets Web Development: HTML, CSS, SQL, Angular.js, Node.js, Bootstrap, Socket.io, Dreamweaver

Platforms: UNIX, Visual Studio, Android Studio, Eclipse, Wireshark, GitHub, SVN

Machine Learning: OpenCV, Numpy, Scipy, Data Mining Graphic Design: Photoshop, Illustrator, InDesign

Scripting: Batch, Shell, VBScript