


KEVIN CALDWELL

HARDWARE ENGINEER

 San Francisco, CA
 (917) 679-5147
 kvn.caldwell@gmail.com

[Website](#)
[GitHub](#)

SKILLS:

Python **C / C++** **Arduino** **Raspberry Pi** **PCB Design** **RF/ Antenna Design**
TCP / IP / UDP Protocol **3D Modeling/ Printing** **Swift/ iOS App Development**

EDUCATION:

Make School – San Francisco, CA 2015 – 2017 (Expected)

Electrical Engineering, Full-Stack Software Engineering, Entrepreneurship

Make School creates foundations in problem-solving, learning by doing, working in teams, shipping real-world products and entrepreneurial career development. Curriculum includes but is not limited to Internet of Things, electrical engineering, and full-stack iOS app and web development.

State University of New York at Purchase – Purchase, NY

May 2013

Bachelor of Arts – Media, Society & the Arts

Using cultural theory, cultural production, and DIY aesthetic to explore the roles that media technologies and the arts play in everyday life.

PROJECTS:

xBAND – P2P Radio Mesh Network

Feb 2016 – Current

- Working within a mentor-guided team, developed a low-cost ISM radio with an Arduino to create a P2P mesh network capable of bridging internet connectivity from one access point node to many client nodes. Personally involved in hardware engineering, schematic and PCB design, along with firmware and network protocol implementation.
- **Core Technologies:** C/ C++, Python, Java, React Native, ISM Radio Transceivers, Arduino, EagleCAD, TCP/ UDP/ Multicast

Viewtiful – iPhone App to Remote-Control IoT Camera

Nov 2015 – Jan 2016

- An improvement upon a previous IoT project (Selfie Swipecy), product features include movement detection to trigger phone notifications, remote live-streaming over TCP socket connection and photo capture, housed within a custom Star Wars-inspired 3D printed case.
- **Core Technologies:** C/ C++, Python, Swift, Raspberry Pi, Arduino, TCP/IP sockets

Selfie Swipecy – Gesture-Activated IoT Camera

Oct 2015

- A webcam connected to a Wifi-enabled Arduino Yun, triggered by a wave gesture, to take a photo that was then uploaded and sent as an MMS directly to a user's phone.
- **Core Technologies:** C/ C++, Python, Arduino, Dropbox API, Twilio API

EXPERIENCE:

Web Development Intern

Sep 2014 – Jan 2015

StarChefs.com, New York, NY

- Supported the maintenance and updating of the back-end frameworks.
- Implemented industry techniques of web UX/UI.
- Applied knowledge of industry-standard security principles.
- Utilized web development tools including PHP, MySQL, Drupal, HTML and CSS.
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ADDITIONAL:

Social Media Manager Intern, 3DP4E New York, NY

July 2015 – Sep 2015