

Summary

Skilled Hardware and Software Engineer specializing in full stack research and development projects. Success in taking electronic projects from conception to product launch in a variety of fields including consumer electronics, marketing, and education. Agile in researching the necessary technologies to complete a project, pragmatically integrating new platforms and programming methodologies. Strong leadership skills and excellent time management in hectic startup environments.

Skills

- Experience using EE design tools such as Cadsoft Eagle, Pspice, LogicWorks, Maple and Matlab
- Embedded Firmware development involving BTLE, Wifi, USB, Zigbee; FreeRTOS, OpenEmbedded linux
- Data Analysis using numpy/scipy/pandas to quantify sensor performance and create basic models
- Low-volume prototype assembly soldering and hot-air rework, PCB inspection and debugging
- Intermediate knowledge of C/C++, Python, Java, Javascript, Node.js, bash
- Experience with linux servers, virtualization, and cloud tools such as Amazon AWS, Docker, Chef

Work Experience

- **Sum, NYC - Research and Development Engineer** **June 2013-Present**
 - Designed and fabricated prototypes to test new sensor concepts and evaluate existing sensor performance
 - Coordinated with external hardware teams to specify design and to debug delivered prototypes
 - Designed clinical research trials, trained technicians, modified firmware, wrote tooling and documentation
 - Developed motion artifact rejection and peak-detection algorithms in both Python and firmware C code
 - Implemented third-party activity recognition library, flash storage, bluetooth low energy in firmware
- **BugLabs, NYC – Lead Engineer** **July 2012-May 2013**
 - Coordinated development efforts on new M2M platform while continuing RnD efforts:
 - Managed and prioritized engineering resources towards platform development
 - Developed platform libraries in Embedded C, Python, Java, Javascript
 - Created frontend/backend framework for generating real-time hardware web dashboards
 - Designed and prototyped new hardware for the OpenXC platform in conjunction with Ford
- **BugLabs, NYC – Applications Engineer** **Feb 2011-June 2012**
 - Designed, built, and deployed hardware and software towards Research and Development efforts:
 - Principle engineer on NSF grant for a new high school physics datalogger device
 - Designed an internet-enabled teddy bear for hospital patient comfort, produced 8 prototypes
 - Developed facebook application frontend/backend code and hardware for a social vending machine
 - Created custom hardware, lesson plans, and sample code projects for an internship program
 - Helped to restructure low-level linux driver code and wrote python libraries for the bug
- **EtherMetrics, Troy NY - Electrical Engineer** **May 2008-Aug 2008**
 - Analyzed and debugged power supply circuit, reworked SMT IC's and components
 - Redesigned board, prototyped, and researched supply chain for entry into production

Education

- ❖ Rensselaer Polytechnic Institute (RPI), Troy, NY **Graduated-Aug, 2010**
B.S in Electrical Engineering, Minor in Architectural Acoustics

Activities

- **RPI Players - 2008-2009 Season President** **April 2008-April 2009**
 - Leader of 60+ member organization: resolving conflicts, coordinating personnel, planning events, and managing inter-club relations

Interests

Theater sound and lighting design, hardware hacking, open-source hardware, audio engineering