

# William Abajian

HARDWARE ENGINEER · LOGIC AND EMBEDDED

San Francisco, CA, USA

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## Summary

Experienced firmware developer and M.Eng. graduate from Cornell University in Electrical and Computer Engineering. Interests span from creating and programming

**Embedded Systems** to **Computer Architecture** and **ASIC design**. Experienced with both embedded Linux platforms such as the Raspberry Pi and DE1-SoC, and bare-metal platforms like the PIC32. Well-versed in **C**, **Python** and **Verilog**, and uses **Git** for version control.

## Education

### Cornell University

Ithaca, NY

M.ENG. IN ELECTRICAL AND COMPUTER ENGINEERING

Aug. 2016 - Aug. 2017

- GPA: 3.673
- Relevant Courses: Advanced Computer Architecture, Embedded Operating Systems, HL Digital Design Automation, Complex Digital ASIC Design, Advanced Microcontroller Design, Parallel Programming

### Cornell University

Ithaca, NY

B.S. IN ELECTRICAL AND COMPUTER ENGINEERING

Aug. 2012 - May 2016

- Minor: Computer Science
- Dean's List: Spring 2014, Fall 2015, Spring 2016
- Relevant Courses: Computer Architecture, Designing with Microcontrollers, Digital VLSI Design, Telecommunications, Operating Systems, Embedded Systems

## Work Experience

### Spansive

San Bruno, CA

FIRMWARE DEVELOPER

Jan. 2018 - Present

- I operate within a small team designing algorithms and utilizing signal processing in order to achieve orientation and position independent wireless charging under the Qi specification.
- The main microcontroller on our board is an NXP KV5x with ARM Cortex M7, programmed with C
- I spearheaded transition to RTOS from bare-metal in order to more readily address the challenges of a complex system, and continue to work with and maintain said system
- I work closely with hardware team during bring-up and debugging of board revisions.
- I am the sole maintainer of Python testing and verification suite used to characterize properties of the analog circuitry.
- I implemented our PCB and full assembly tests for manufacturing, and worked with the team at our CM to create the testing procedure and the interface with the testing platform.

### Cornell College of Engineering

Ithaca, NY

GRADUATE TEACHING ASSISTANT FOR DIGITAL VLSI DESIGN

Jan. 2017 - May 2017

- Held weekly office hours to assist students with concepts and problem sets.
- Graded problem sets and exams. Graded live demos of lab assignments; these assignments were using Cadence to design specific digital circuits.
- Wrote problems for problem sets and exams. Test drove several labs to verify feasibility.

### Cornell Information Technology

Ithaca, NY

COMPUTER LAB OPERATOR

May 2013 - Dec. 2016

- Supervised the use of various computer labs across campus.
- Provided technical support for lab patrons.
- Ensured that the printers were stocked and operational.
- Prepared specialty classrooms for professors.

### Cornell Academic Technologies Center

Ithaca, NY

STUDENT TECHNOLOGY ASSISTANT

May 2013 - May 2016

- Provided technical support to professors for various pieces of software.
- Checked out devices such as cameras to professors.
- Performed media conversions (analog to digital) for professors.

## **Clad Network, Inc.**

LEAD HARDWARE ENGINEER

- Early employee in startup
- Discussed business and technology strategy with the rest of the team.
- Implemented adaptive lighting system for our product on an Arduino microcontroller.
- Created a networking solution for the onboard embedded Linux platform in our product.

*Ithaca, NY*

*Oct. 2014 - Sept. 2015*

## **Wallaby Yogurt Company**

ENGINEERING AND MAINTENANCE INTERN

- Maintained and updated an Access database used for parts inventory.
- Setup virtual environments for testing database software.
- Devised a mobile monitoring system for the plant.
- Performed maintenance on the video surveillance system and the wireless network.
- Assisted in the installation of automation hardware.

*Napa County, CA*

*June 2014 - July 2014*