Matthew Lee

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Education **California Polytechnic State University**, San Luis Obispo, CA
B.S. in Computer Engineering, 2018

Experience **Apple, Inc.** Cupertino, CA
Software Engineer **–** June 2018 – Present

- Created internal tool which leveraged hardware reliability data and in-field device performance data in order to experiment with and optimize algorithms controlling user facing device functionality.
- Designed and spearheaded data gathering initiatives crucial in making key firmware and algorithmic design choices.
- Defined design choices for foreign object detection, coil selection and device detection subsystems on inductive charging solution.
- Built and maintained test frameworks and scripts for validating firmware builds on 1st generation prototype hardware.
- Worked with cross functional teams to communicate their needs, issues and testing status back to the firmware development team.

Sensel, Inc. Los Altos, CA
Software Engineering Intern **–** June 2017 – Dec 2017

- Created and defined software for testing and quantifying metrics of FSR touch-pad performance used both in factory and during algorithm qualification.
- Employed regression line analysis of known linear test conditions to generate in-depth reports of performance as well as a single overall score used in automated performance optimization.
- Updated factory software for new device production run as well as debugging/maintaining systems (Python & C#).
- Consulted with contract manufacturer in order to improve factory test stations as well as create new test fixtures.

Afero, Inc. Los Altos, CA
Software Engineering Intern **–** June 2016 – February 2017

- Defined, designed and implemented factory hardware validation test system for IoT hub device in Python as well as participating in initial production bring up.
- Defined, designed and implemented RF (Wifi 5GHz and 2.4GHz, BLE, WAN) calibration factory test system in Python.
- Implemented factory firmware flashing system in Python.
- General scripting and programming tasks in C and Python (i.e. CRC8 checksum generator, device firmware updater).

Thync, Inc. Los Gatos, CA
Software Engineering Intern – June 2015 – Jan 2016

- Created desktop application and corresponding hardware drivers for simplified and intuitive control of wearable function generator. Application used by MIT & Stanford doctors and neuro-scientists in the development of medical transdermal electrical waveforms.
- Created Python drivers for interfacing with BLE FTDI board over serial.
- Created a temperature sensor that reported temperature once every second and then transmitted data to BLE serial chip. The program logged temperature in .csv file format.

Skills Python, C, C#, Java, Bash/Shell, Git