
Mark H. Spatz

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(816)-679-1502

Education

May 2014: B.S. in Electrical Science and Engineering, Massachusetts Institute of Technology

February 2017: MEng in Electrical Science and Engineering, Massachusetts Institute of Technology

Coursework

6.334: Power Electronics,	6.332: Advanced Topics in Power Electronics,
6.302: Feedback Systems,	6.301: Solid State Circuits,
6.003: Signals and Systems,	6.041 Probabilistic Systems Analysis, 6.011,
18.06: Linear Algebra,	18.0851: Computational Science & Engineering I,
6.012: Microelectronic Devices & Circuits,	6.013: Electromagnetics and Applications,
6.002: Circuits & Electronics,	6.131: Power Electronics Lab,
6.556: Data Acquisition and Image Reconstruction in MRI,	
6.776: High Speed Communications Circuits,	
6.01, 6.02, 6.004, 6.006, 6.101, 18.03, Chinese I	

Experience

LeafLabs LLC. — Member of Technical Staff (April 2018 - October 2020), Senior Member of Technical Staff (October 2020 - Present): FPGA development, C++ development for high performance data acquisition and real time signal processing.

Cascodium Inc. — Development Engineer (March 2017 - April 2018): VHDL development including a parameterized fixed point radix-4 FFT for a radio application. C development on Linux and FreeRTOS.

Martinos Center for Biomedical Imaging. — Research Assistant (September 2015 - February 2017): Designed, built, and tested parallel MRI receive arrays for fetal imaging at 22 and 36 weeks of pregnancy.

SQZ Biotech. (June-August 2015): Developed an electronic pressure control system to drive material through microfluidic chips.

Ashton Instruments. (February-May 2015): Created a devboard for a bicycle power meter. Created/maintained various pieces of firmware and data analysis software.

Apple Inc. — iPad Systems EE Intern (June-December 2014): Worked on the systems integration team facilitating pre-production iPad builds, troubleshooting production and desense issues, and completing characterization tasks.

Fitbit Inc. — Research Intern (Summer 2013): Developed a new pedometer algorithm for internal verification purposes and did investigative work on the electronics for a new product.

Fitbit Inc. — Production Intern (Summer 2012): Helped with preliminary FCC testing for the fitbit One, and spent a total of four weeks in mainland China helping bring up production lines for the fitbit Zip.

Interests and Skills

- Circuit design and debugging
- PCB design, mostly using KiCad
- RF hardware
- Switching converters and other power electronics
- ARM development
- Proficient in C, C++20, Python