Mark H. Spatz

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Education

May 2014: B.S. in Electrical Science and Engineering, Massachusetts Institute of Technology
December 2016: M.S. in Electrical Science and Engineering, Massachusetts Institute of Technology

Coursework

Fall 2015 6.556: Data Acquisition and Image Reconstruction in MRI, 18.06: Linear Algebra

Spring 2014 6.101: Analog Circuits Lab, 6.006: Introduction to Algorithms

Fall 2013 6.301: Solid State Circuits, 6.332: Advanced Topics in Power Electronics, Chinese I

Spring 2013 6.302: Feedback Systems, 6.334: Power Electronics, 6.011: Intro to Communication, Control, and Signal Processing

Fall 2012 6.013: Electromagnetics and Applications, 6.003: Signals and Systems, 6.041 Probabilistic Systems Analisys

Spring 2012 6.012: Microelectronic Devices & Circuits, 6.004: Computation Structures

Fall 2011 6.02: Intro to EECS II, 6.002: Circuits & Electronics, 6.131: Power Electronics Lab

Spring 2011 6.01: Intro to EECS I, 18.03: Differential Equations

Experience

Research Assistant, Magnetic Resonance Imaging Group. September 2015 - Present: Building a 128 channel MRI receive coil for fetal imaging.

Electrical Engineer, SQZ Biotech. June-August 2015: Developed a pressure control system to drive material through microfluidic chips.

Electrical Engineer, Ashton Instruments. February-May 2015: Created a development board for an upcoming bicycle power meter. Created/maintained various pieces of firmware and data analysis software.

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

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

Production Intern, Fitbit Inc. 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
- Switching converters and other power electronics
- ARM and AVR development
- Proficient in C, Python, and Matlab.

References Available upon Request