

SAM ZECKENDORF

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ELECTRICAL & COMPUTER ENGINEER

Experience

Alphabet Inc.

Hardware Design Engineer (Nest Labs)

September 2014

Palo Alto, CA

Designed several FPCs and PCBs from schematic capture & component selection, drove layout and bring-up in factory/lab. Identified design/manufacturing issues at factory in OQC/IQC fixtures, and pursued through resolution

Created and maintained MATLAB/SPICE simulations for sensitive circuitry to allow data-driven hardware design, in particular for IR Receiver Rx chain.

Architect and DRI for system power in high-power consumer product, created validation test plan and drove from Proto through DVT

Wrote and maintained python libraries for interfacing with various test equipment over USB/GPIB, governed by web app

Apple Inc.

Systems Integration Intern (iPhone)

January 2013—September 2013

Cupertino, CA

Validated internal PMU silicon, identified startup issue and root caused, provided final schematic and layout changes

Examined signal and power integrity in several subsystems, including Touch-ID. Identified issues resulting from FPC MCO, drove solution

Investigated audible noise resulting from piezoelectric properties of ceramic capacitors — designed and fabricated drive and measurement circuitry to stress components under different signal inputs, analyzed resultant audio data

Loopit Inc.

Software Engineer

2012, 2013

Cambridge, MA

Designed web service that aggregates product details across variety of websites and generates growing/adaptive lexicon for use in smart shopping tool

Designed smart comparison tool to bin products into similar categories; company was acquired on merit of software efficacy

Education

Tufts University

Bachelor of Science in Electrical Engineering

September 2010 - May 2014

GPA: 3.38

Selected EE Coursework: Feedback-Control Systems, Communication Systems, Microprocessor Architecture & Assembly Code, Digital Logic Circuits, Analog Design I & II, Physics of Solar Cells, Data Structures, Usability Engineering

Selected Other Coursework: Linear Algebra, Discrete Mathematics, Multivariable Calculus, Differential Equations, Music Applications on the iPad, Game Design

<i>Projects</i>	imPact Created iPhone music application "imPact: Remix", funded by Steinway Music	Squid Xbox indie game, awarded Indie Gem award on Joystiq.com (affiliate of engadget)	Smart Hydroponics Intelligent, learning, home-hydroponics system for city dwellers to grow fresh produce. White paper available
<i>Languages & Skills</i>	Assembly Objective-C	C/C++/C#/Java Matlab	Python Verilog/VHDL
