NEIL LAKIN

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EDUCATION

Stanford University *June 2009*
Bachelor of Science in Physics
Cornell University *June 2015*
Master of Engineering in Computer Science

EXPERIENCE

[Stealth Mode Startup] December 2015 - Present
Engineering Consultant *New York, NY*

· Developed Python/Flask/MySQL backend and REST API to support IoT building automation hardware for early-stage energy startup.
· Deployed backend to Amazon AWS as EC2 Apache webserver with RDS MySQL database server capable of supporting up to 1,000 connected devices.

MindMe, Inc February 2015 - Present
Chief Technical Officer *New York, NY*

· Developed inexpensive wearable personal locator for tracking large groups of children on field trips.
· Implemented Bluetooth LE mesh network on Android, iOS, and CSR101x Bluetooth SoC before migrating to more robust library.
· Designed circuit, PCB layout, and firmware, and reflow soldered initial prototypes.
· Conducted extensive user interviews with students, teachers, school administrators, and parents.
· Winner of Cornell Techs inaugural startup award.

Lumeter Networks January 2014 - September 2014
Engineering Consultant *San Francisco, CA*

· Developed hardware/firmware for low cost, prepaid electric meter and control unit for micro-utility entrepreneurs in the developing world.
· Designed novel power line communication scheme for networked microgrid.

Shorai Lithium Batteries December 2013 - August 2014
Engineering Consultant *Sunnyvale, CA*

· Wrote firmware and co-developed analog circuit for battery management system for large lithium ion phosphate batteries.
· Co-invented novel technique for individual cell monitoring and maintenance in large battery stack; patent pending.

Specialized Bicycle Components June 2013 - September 2014
Engineering Consultant *Morgan Hill, CA*

· Developed Flux and Stix lines of high-intensity, USB-rechargeable LED headlamps and taillights.
· Worked closely with Specialized's mechanical engineers and designers to develop products with beautiful user experiences without compromising manufacturability or BOM targets.
· Built test rigs for assembly line QA.

Adori Labs September 2013 - July 2014
Engineering Consultant *Santa Clara, CA*

- Developed firmware in C, C++, and assembly for Silabs ARM Cortex-M3 SoC.
- Worked with FPGA developer to implement software-defined radio and audio processing for automotive entertainment system.
- Co-designed an Android application and API to interface to ARM-based hardware over Bluetooth.

Faraday Bikes October 2012 - March 2013
Engineering Consultant *Palo Alto, CA*

- Built first working prototype of Faraday Porteur, Faraday's first production electric bike.
- Designed throttle circuit and ModBus network to interface with motor controller and battery management system and display status information to user on e-ink display, including initial circuit design, production layout, parts sourcing, and firmware.

Advanced Transaction Devices February 2010 - May 2012
Embedded Systems Engineer *Santa Clara, CA*

- Wrote firmware in C for a variety of 8-,16-, and 32-bit MCUs for industrial control systems.
- Developed proprietary point-of-sale protocol, working with client software developers to take full advantage of our controller.
- Developed point-of-sale software in Python to distribute with hardware.
- Developed software in C to configure and troubleshoot controllers and a point-of-sale terminal.
- Created mechanical designs for industrial products using SolidWorks CAD software.

American Indian Public High School June 2010 - June 2011
AP Physics Teacher *Oakland, CA*

- Taught 10th-12th grade physics at the conceptual and AP levels.
- Created College Board-approved, laboratory-based Advanced Placement curriculum for newly-created science department.
- Directed creation of new laboratory facilities and specified equipment purchases.
- Mentored afterschool independent study projects in analog electronics and programming.
- Created and advised extracurricular film club.

TECHNICAL SKILLS

Computer Languages	C, Python, Java, C++, Matlab/Octave, Haskell, LaTeX
Architectures & Chipsets	Microchip, CSR, Atmel AVR/AtMEGA, Silabs, Nordic
Web Frameworks	Flask, Django, LAMP/LEMP
Databases	MySQL, PostgreSQL, MongoDB
CAD	Allegro, Eagle, OrCAD, Solidworks
Other Tools	Amazon AWS, DigitalOcean, Heroku, Android Studio, XCode