AJ Minich

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Experience

Senior Embedded Software Engineer (November 2012 – Present)
Nest Labs, Palo Alto, CA

- Designed, developed, and improved features for the world's coolest thermostat, including Auto-Schedule, Rush Hour Rewards, Seasonal Savings, Time to Temp, Early On, and Multistage Control.
- Served as tech lead for Energy Partner programs.
- Implemented various machine learning algorithms, predictive control modules, and expert learner systems for execution on low-power resource-constrained embedded processors.

Software & Algorithms Development Engineer (January 2012 – November 2012)
Bina Technologies, Redwood Shores, CA

- Created build system, implemented continuous integration, and generated documentation for flagship genomic processing product.
- Integrated variant calling modules into an optimized whole-genome sequencing pipeline.
- Built internal tools for validating genomic read alignments and genotyped variants.

Optimization Algorithms Intern (July 2011 – September 2011)
Marin Software, San Francisco, CA

- Designed, prototyped, implemented, and tested new bid optimization system based on convex optimization methods.

RF & Wireless Applications Engineer (November 2008 – September 2010)
Agilent Technologies (now Keysight Technologies), Santa Clara, CA

Hardware Engineer (June 2008 – November 2008)
Dash Navigation, Sunnyvale, CA

Programming/Software

- 5-7 years experience with C++, Python (Flask, Django, Numpy, Pandas)
- 1-2 years experience with Java (ant, JUnit, Maven), C, Objective-C, LaTeX

Patents

- Systems and methods for detecting gesture events in a hazard detection system. U.S. Patent 20150022316, filed July 17, 2014, and issued January 22, 2015.
- Systems and methods for silencing an audible alarm of a hazard detection system. U.S. Patent 20150022344, filed July 17, 2014, and issued January 22, 2015.
- Systems and methods for processing ultrasonic inputs. U.S. Patent 20150029019, filed July 17, 2014, and issued January 29, 2015.
- Generating and implementing thermodynamic models of a structure. U.S. Patent 20140312128, filed April 19, 2013, and issued October 23, 2014.
- Controlling an hvac system in association with a demand-response event. U.S. Patent 20140277761, filed April 19, 2013, and issued September 18, 2014.

Education

Stanford University (September 2010 – December 2011)
M.S. Electrical Engineering, focusing in Machine Learning and Dynamic Optimization

Stanford University (September 2004 – June 2008)
B.S. Electrical Engineering, Minor in East Asian Studies