

Nolan Hergert

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EDUCATION:

Carnegie Mellon University August 2008 – May 2013 Pittsburgh, PA
M.S. and B.S. in Electrical and Computer Engineering: GPA of 3.5/4.0 and 3.1/4.0

SKILLS:

Languages: Python, C, Matlab. familiar with C++ and Java

Algorithms: Signal Processing, Search Algorithms, familiar with Machine Learning, Microcontrollers

EXPERIENCE:

Intel Corporation, Software/Firmware Engineer July 2015 – Present Hillsboro, OR

- Decreased overhead of Intel Optane dimm management software by >10X and fixed many other issues, incorporated a unit test framework into the team's CMake project, and served as lab manager for team
- Fixed and discovered several nuanced issues in the Intel Management Engine firmware and the associated bring-up and reset power flows for Intel Xeon processors

Consultant January 2015 – July 2015 Hillsboro, OR

- Developed a battery-powered environmental monitoring solution. Wrote firmware for the Particle embedded development board and a server backend for collecting data and viewing on an external intuitive web interface

Edwards Lifesciences, Research Engineer I June 2012 – August 2012 and July 2013 – August 2014 Irvine, CA

- Reduced algorithm developer overhead by creating a Python API and correcting several A/D converter and clock synchronization issues in one terabyte of time-series datasets
- Implemented an order of magnitude speedup on algorithm verification using Windows XPerf tools

Carnegie Mellon University, Student September 2008 – May 2013 Pittsburgh, PA

- Increased the robustness and simplicity of a webcam-based non-contact pulse detection algorithm. Utilized features in OpenCV framework to track face precisely and perform fast filtering. Published documentation and Python library to Github
- Co-created multi-threaded caching proxy server in C for final class project that passed TA stress test
- Co-created outdoor line following robot using an Android smartphone and OpenCV that completed an outdoor course at CMU. Took 1st place among ~8 student teams
- Co-created simulated distributed system (elevator) over a bandwidth-limited CAN bus with a small team. Passed final stress test inspection
- TA for 18-551, Signal Processing Capstone class

Carnegie Mellon University *BodyTrack Project*, Research Engineer February 2010 – May 2011 Pittsburgh, PA

- Developed algorithms to extract meaningful insights from medical and environmental data
- Wrote driver code in C for AVR microcontrollers that enabled interfacing to external devices

Build18, Participant, Advisor, Tutorial Developer January 2009 – May 2013 Pittsburgh, PA

- Built multiple projects for yearly Build Week event, including a next-generation virtual reality gaming environment and a self-tuning strobe light.
- Led the development of three engaging tutorials on learning microcontrollers, signal processing, and brainstorming project ideas.