Travis M. Whitaker

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EDUCATION

Bachelor of Science, Chemical Engineering - PGPA 3.8
Rochester Institute of Technology, Rochester, NY, expected graduation: May 2016
Minor: Computer Engineering
Concentration: Japanese Language

SKILLS

Languages & Software: C, C++, Haskell, BASH, Python, 80x86 Assembly,
AVR Assembly, Mathematica, MATLAB, LaTeX, PostgreSQL
Hardware: HP/Soltec Oscilloscopes, Tektronix Function Generators,
Gas Chromatographs, Mass Spectrometers, Various Rheometry Apparatus

EXPERIENCE

Systems Programmer   June 2013 - Present
Janssen Biotech, a Johnson & Johnson Company, Philadelphia, PA

- Lead team developing high-performance numerical modeling and analysis software.
- Maintain numerous large C and Haskell codebases.
- Design and implement domain-specific languages for industrial process genealogy.
- Numerics optimization (GPU Programming, LLVM)
- Distributed computing (Data Parallel Haskell, MPI, Ceph)
- Implement graph database for process flow tracking and real-time fault detection.
- Extensive use of AWS.

Researcher/Laboratory Technician   Summer 2012
Applied Electrostatics Laboratory, SUNY Oswego, Oswego, NY

- Conducted experiments exploring potential applications of electrospray ionization.
- Wrote software application in C for tracking individual particles to aid the analysis of high-speed footage of clouds of electrostatic particles produced via electrospray ionization.

PROFESSIONAL INTERESTS, HOBBIES, AND PROJECTS

- *Octothorpe* – Cache-optimized thread-safe C data structures library.
- *libPOLY* – Portable real-time sound synthesis library.
- *FermiShell* – Small shell utility for solving chemical equations.
- Digital Signal Processing
- Computer Algebra
- Embedded Systems Programming
- High-End Audio
- Discrete Electronics

PROFESSIONAL ORGANIZATIONS

Computer Science House – Reasearch & Development Director 2014-2015
American Institute of Chemical Engineering
American Mathematical Society
American Chemical Society
Association of Computing Machinery