Sean Shahkarami

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I've been an avid programmer since about 2004 with a formal education in pure and applied math and a strong emphasis on computing.

Skills

Python, Go, Bash, PyTorch, Scikit-learn, Pandas, Linux, Docker, C/C++, SQL, Git

Work Experience

Waggle / Sage / Array of Things Developer | Argonne National Lab | Since January 2016

I'm helping fuel future science by building scientific cyberinfrastructure for AI/ML applications at the edge. Here are some pieces I've worked on:

• Developed data pipeline which compiles ~300GBs of data nightly.
• Developed open-source Python / C++ libraries used directly by all clients.
• Containerized most of our node software stack.
• Developed Virtual Waggle development toolchain used directly by most clients.
• Redesigned OS build process to reduce build complexity and times from hours to minutes.
• Developed firmware for our system critical embedded WagMan board.
• Developed interactive QA process used by our manufacturing partners and technicians.
• Guided summer interns through the design, implementation and integration of software tools.

Math and Computer Science Intern | Argonne National Lab | Summer 2015

• Implemented code and tools for large scale watershed simulation in C using PETSc.
• Provided background knowledge of hyperbolic PDEs and fluid mechanics.

Education

• Progress towards Ph.D in Mathematics, 2011-2016, UIUC
• M.S. in Mathematics, 2011-2013, UIUC
• B.A. in Mathematics with Minor in Computer Science, 2007-2011, UIUC