

Sean Shahkarami

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I've been an avid programmer since about 2004. My formal education is in pure and applied math with a strong emphasis on computing. Along the way, I've worked on lots of different problems which has helped me develop a well-rounded skillset. These days, I'm looking forward to what I can do in the exciting AI/ML space.

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

I implemented code and tools going towards a large scale watershed simulation. This involved knowledge of fluid mechanics and hyperbolic PDEs, tool development in Python, and building the simulation on top of PETSc in C.

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