Steve Herrin

CONTACT INFORMATION

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EXPERIENCE

23andMe, Mountain View, CA — January 2014 – present

Software Engineer

- Using Luigi and Celery, created data pipelines to impute, analyze, and monitor TB scale amounts of genetic data.
- Maintained and monitored ETL processes for billions of genotypic and phenotypic data points into MySQL and HBase tables.
- Developed data quality checks that uncovered at least 3 subtle bugs in ETL processes.

Insight Data Science, Mountain View, CA — August 2013 – December 2013

Postdoctoral Fellow

- Developed Parksafely, a web app to recommend safe, nearby bicycle parking for destinations in San Francisco.
- Created and validated a heuristic algorithm for parking recommendations using Python and a PostgreSQL/PostGIS database, reducing bike theft risk by 40% while requiring only 150 ft more walking on average.

SLAC National Accelerator Lab, Menlo Park, CA — May 2008 – August 2013

Graduate Research Assistant

- Created a PHP logbook webapp with a MySQL back-end for tracking work on the EXO-200 experiment.
- Expanded a LabVIEW-based system for monitoring and controlling the experiment, recording over 600 channels of telemetry in a MySQL database.
- Created data pipelines to routinely determine electron attenuation, light propagation, and energy scale calibration, improving energy resolution by 25%.

Rice University, Houston, TX — May 2005 – May 2007
and **University of Washington**, Seattle, WA — June 2006 – August 2006

Undergraduate Research Assistant

- Implemented (in C++) and evaluated random forest and boosted decision tree algorithms that contributed to the discovery of sigle top quark production by Fermilab's D0 experiment.
- Investigated machine learning algorithms (SVM, neural networks, KNN) to discriminate supersymmetry from backgrounds in the D0 experiment.

SKILLS

- **Languages:** Python, C++, MATLAB/Octave, LabVIEW, PHP, Bash/Shell scripting, Mathematica (some experience), Java (some experience), JavaScript (some experience)
- **Tools:** NumPy, SciPy, Flask, Django, Celery, Luigi, MySQL, PostgreSQL, Git, SVN, P4, LaTeX, HBase (some experience), Hadoop/MapReduce (some experience)
- **Other:** Machine learning, classification, regression, statistics, mathematics, hypothesis testing, Monte Carlo simulations, time-series analysis

EDUCATION

Stanford University, Stanford, CA — June 2013

- Ph.D. (Physics)

Rice University, Houston, TX — May 2007

- B.S. (Physics)