# Steve Herrin


CONTACT INFORMATION

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## EXPERIENCE

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

*Engineering Team Lead: Data Services and Portals Team*

- Grew an engineering team from 2 engineers (including myself) working on one project to 5 engineers working on 2–3 projects
- Created Genotyping Services, a webapp allowing external researchers to easily run genetic studies, increasing sales by over 2%.
- Led team responsible for a web-based portal that allows internal and external researchers to dynamically query aggregate statistics on anonymized data stored in HBase for >2 million customers.
- Migrated a 20 kLOC web application to the AWS cloud, upgrading the back-end from Python 2 to 3 and standardizing the front-end using Elm
- Architected and implemented a Python library that provides a unified API for accessing customer data across MySQL, HBase, and other data stores.
- Built data pipelines with Luigi, Celery, and AWS services to run Python, C++, and R algorithms to impute, transform, and analyze TB of genetic data

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

*Postdoctoral Fellow*

- Developed Parksafely, a web app applying a heuristic algorithm to make parking recommendations, reducing bike theft risk by 40% while requiring only 150 ft more walking on average. Used Flask, PostgreSQL/PostGIS, and Javascript.

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

*Research Associate*

- Applied machine learning and computer vision algorithms to improve detector energy resolution by 25%.
- Created a PHP logbook webapp with a MySQL backend for tracking work on the EXO-200 experiment.
- Developed batch data pipelines using Python, C++, and shell scripts to process TB of calibration data.
- Mentored 1–2 junior graduate students (at any given time) on lab, coding, and statistical technique.

**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 single top quark production by Fermilab's D0 experiment.

## SKILLS

**Languages:** Python, C++, Rust (some experience), SQL, Shell Scripting, PHP, MATLAB/Octave, Elm, Mathematica (some experience), Java (some experience), JavaScript (some experience), R (some experience)

**Tools:** AWS, NumPy, SciPy, Celery, Luigi, Django, MySQL, PostgreSQL, Git, SVN, P4, LaTeX, HBase, Spark, Backbone JS

**Other:** Machine learning, classification, regression, statistics, hypothesis testing, Monte Carlo simulations, time-series analysis

## OPEN SOURCE

**SpookyOTP:** A lightweight Python implementation of TOTP/HOTP authentication

## EDUCATION

**Stanford University**, Stanford, CA — June 2013

- Ph.D. (Physics)

**Rice University**, Houston, TX — May 2007

- B.S. (Physics)