
EXPERIENCE

Google*Data Scientist - Search and Discovery at YouTube*

Mountain View, Calif.

Nov. 2018 - Present

Airbnb*Data Scientist - Algorithms*

San Francisco, Calif.

Sep. 2018 - Nov. 2018

Cardinal Analytx*Data Scientist*

Palo Alto, Calif.

Aug. 2017 - Aug. 2018

- **Modeled health insurance claims data** using more than 80k features to predict a variety of outcomes, including nominal responses and orthopedic-joint surgeries. Built out the company's core product(s).
- **Authored robust and extensible production quality machine learning pipelines** enabling state of the art results in a daily production cycle, improving performance 50% beyond a [BMJ Open 2017 research paper](#).
- **Lowered the memory footprint and compute time** by an order of magnitude.
- **Realized business value** by authoring both a risk-based model for actuarial purposes, outperforming state of the art compared with [SOA's annual report](#), and also predicting orthopedic-joint surgeries in effort to route individuals from remote areas in Alaska and Washington to established centers of excellence.

Stanford University*Lecturer (2017 - present); Teaching Fellow (2016-2017); Teaching Assistant (2016)*

Stanford, Calif.

Jan. 2016 - Present

- **Prepared and delivered lectures 2x/week** for CME 211 and 212 (intro and advanced scientific computing), with classes of 80 graduate students in STEM fields; managed a staff of four teaching assistants.
- **Engineered an AutoGrader system** in Python to facilitate programmatic grading of students' computer programs by fetching submissions and generating an interpretable grade report.
- **Synthesized lecture notes** for [CME 323](#), a course in parallel and distributed algorithms.

Lawrence Livermore National Lab*Computational Engineering Intern*

Livermore, Calif.

Summer 2015

- **Contributed to SparkPlug**, a statistical project for Spark, written in Scala. Implemented distributed MCMC, Bayesian updating methods for use with conjugate priors, and relevant methods for extracting sufficient statistics.

The Brattle Group*Research Analyst*

San Francisco, Calif.

May 2012 - June 2014

- **Wrote a spell-checker using regular expressions** to recover thousands of GPS coordinates from a text-field on a proprietary survey with an accuracy rate of 97%.
- **Used ArcGIS and Python** to combine various data sources and examine spatial patterns along the U.S. coastline.
- **Created and presented** eight R training sessions including parallel programming, web-scraping, and text mining.

EDUCATION

Stanford University*M.S., computational mathematics, 3.96*

Stanford, Calif.

Aug. 2014 - June 2017

- Capstone thesis with Guido Imbens: estimated causal effects of night life on subsequent day sporting performance.
- One of two staff to earn an Annual Excellence in Teaching Award, received from ICME in 2017.
- Passed ICME Ph.D. qualifying exams in both stochastic processes as well as discrete mathematics and algorithms.

University of California, Berkeley*B.A., economics, 3.96*

Berkeley, Calif.

Aug. 2010 - May 2012

- Highest Honors; thesis estimated causal effects of NCAA D1 sports participation on academic success.
- Student Athlete: "walk-on" for the swim and dive team, earned one of two spots on the diving travel squad. NCAA team championships in 2011 and 2012.
- Neufeld Scholar: highest cumulative GPA among all student-athletes in 2012.

Foothill College*A.A., economics, communications, and an English certificate, 3.73; honors*

Los Altos, Calif.

Sep. 2007 - June 2010

PROGRAMMING SKILLS

Proficient: C, C++, Git, \LaTeX , Matlab, Python, R, Scala, Spark, Stata