

## EXPERIENCE

### Mozilla

2016 - Present

*Principal Data Scientist* - Mozilla's most senior data scientist. Tech lead for a team of 18 data scientists.

- *Search and Sustainability Team Lead* - Independently investigated the \$400 million per year search business that dominates Mozilla's revenue. Founded and grew a team of Data Scientists focused on increasing revenue. Our findings are directly consumed by the C-Suite and have earned Mozilla tens of millions of dollars.
- *Executive Data Intuition* - Led a six-month initiative to help the executive team build intuition for our key performance indicators (KPIs). Met with executives weekly to field questions and explain anomalies. Mentored my team in creating a weekly report and dashboard for the C-Suite.

*Staff Data Engineer* - Technical lead for the Firefox Data Engineering team. Responsible for developing tools that make it easy to answer questions about our users.

- *docs.telemetry.mozilla.org* - Built documentation for our data platform that is used by hundreds of employees every month. I successfully built tools and culture to keep the documentation up to date. The repository is publicly accessible and has >500 commits from >50 contributors.
- *Derived Datasets* - Built Scala/Spark-based datasets to drastically reduce analysis time. Part of a distributed data pipeline that processes terabytes of data per day.

### Google

2013 - 2016

*Data Scientist* - Member of the Search Quality team. Responsible for measuring and monitoring the quality of Google and YouTube search.

- *Launch Evaluation* - Designed experiments and metrics to determine quality of candidate changes to Google search. Presented weekly to executive leadership.
- *YouTube Search Quality* - Lead analyst for the YouTube Search Quality team.
- *Survey Design Reviewer* - Member of a small team of analysts responsible for reviewing and advising on the methodology, design, and implementation of all surveys.
- *Rater Quality Research* - Built a distributed and parallelized system in R to simulate the effect of bad-faith survey respondents.

### Energy Ventures Analysis

2011 - 2013

*Quantitative Analyst* - Sole Quantitative Analyst for the Power team. Designed, built, and validated quantitative energy market models.

- *Public Utility Council of Ohio; Case 10-2929-EL-UNC* - Developed and defended a model to value the contested fair-market value of capacity payments. My valuation was accepted by the court, likely reducing total capacity payments in Ohio by more than \$1 billion.
- *Barge Cost Model* - Built a tool in Python & Excel to simulate the cost of barging coal.

### Pace Global Energy Services

2010 - 2011

*Quantitative Analyst* - Built simulations to predict power market behavior.

## EDUCATION

### James Madison University

2006 - 2010

*Bachelor of Science*  
*Minor*

Quantitative Finance, Mathematics, Economics  
Computer Science

## SKILLS & TOOLS

**Programming Tools:** Python, R, SQL, Spark, Scala

**Domain Expertise:** Experiment Design, Building useful documentation, Big Data Engineering and Analysis, Search, Survey Design, Simulation, Power Markets