

EXPERIENCE**Shopify** 2021 - Present

Senior Staff Data Scientist - I work directly with the CEO and C-Suite to inform their decisions with data. I lead ad-hoc teams of data scientists from across the company to execute these analyses.

Mozilla 2016 - 2021

Principal Data Scientist - Technical lead for the Data Org. Mozilla's first and only Principal Data Scientist.

- *Search and Sustainability Team Lead* - Founded a team to understand the \$400 million per year search business that dominates Mozilla's revenue. Our findings are directly consumed by the C-Suite and have earned Mozilla hundreds of millions of dollars.
- *Litigation* - Lead data scientist for a lawsuit disputing nearly one billion dollars. Developed analyses critical to our successful defense.
- *Executive Guidance* - Worked directly with the executive team to guide product decisions and to understand the impact the COVID pandemic had on our business.

Staff Data Engineer - Technical lead for the Firefox Data Engineering team.

- *Lead Author for Mozilla's SQL Style Guide* - Independently adopted by Shopify and the SQLFluff linter.
- *docs.telemetry.mozilla.org* - Built a documentation system for our data platform. Used by hundreds of employees every month. I successfully built tools and culture to ensure the documentation stays up to date. The repository is publicly accessible and has >500 commits from >50 contributors.
- *Derived Datasets* - Part of a Scala/Spark-based data pipeline that processes terabytes of data per day.

Google 2013 - 2016

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

- *Launch Evaluation* - Designed experiments and metrics to determine the 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.

Energy Ventures Analysis 2011 - 2013

Quantitative Analyst - Lead Quantitative Analyst for the Power team.

- *Public Utility Council of Ohio* - Developed and defended a valuation for capacity payments. My valuation was accepted by the court, likely reducing total capacity payments in Ohio by > \$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.

WRITING & TALKS**Conference Talks**

- *Strategies for Focusing on the Most Important Thing* - LeadDev NYC 2022
- *Getting Credit for Invisible Work* - csv.conf 2021
- *Common Sense Statistics - Bootstrapping* - Vermont Code Camp 2019
- *When the Bootstrap Breaks* - Open Data Science Conference East 2019

Blogging

I've been blogging at blog.harterrt.com since 2016. I've had multiple articles on the front page of Hacker News. My work has been discussed in Data Science Weekly and Fishtown Analytics' newsletter.

EDUCATION**James Madison University** 2006 - 2010

Quantitative Finance, Mathematics, Economics - *Bachelors of Science*
Computer Science - *Minor*