

EDUCATION

Georgetown University

May 2025
Ph.D. Economics
Courses: Econometrics, Computational Economics
TA: Economics Statistics, Political Economy

University of British Columbia

November 2019
B.A.Sc Electrical Engineering & B.A. Economics
Courses: Algorithms, Software Engineering, Probability
TA: Introduction to Probability

EXPERIENCE

Roblox

Data Science Intern

- Developed a demand estimation model resulting in a **4% revenue increase opportunity** through strategic price adjustments for one of the platform's largest experiences
- Designed and implemented an experience-level price recommendation tool, enhancing pricing strategies for improved profitability
- Engineered database tables and pipelines, achieving a **10x reduction in time to identify critical supply-side interventions**, streamlining decision-making processes
- Implemented a caching wrapper around the core querying service, **dramatically reducing query times on subsequent runs by nearly 100%**

Avalanche Insights (*tech-enabled public opinion research company*)

Software Engineer I

Python, Airflow, SQL

May 2023 — August 2023

- Created an interface that enabled analysts to combine and interact audience responses, **decreasing analysis time by 50%**
- Built a data visualization interface using Visx, enabling analysts to **visualize as many as 10K responses in 2x faster**
- Integrated AWS Mechanical Turk into the core product, **reducing the time taken to use the service by 4x**
- Helped conceptualize and create an interactive tool to qualitatively code thousands of open-ended responses into quantifiable themes, delivering \$10M in public opinion research between 2019-2021

Avalanche Insights

Technical Analyst

Python, Django, React, PostgreSQL

September 2020 — July 2021

- Designed, implemented, and standardized the company's weighting methodology for sample collection, **increasing accuracy and precision by 15%**
- Streamlined data ingestion and collection by writing custom R packages and Python integrations with external vendor APIs, **increasing project capacity by 4x**
- Built a prototype SurveyMonkey integration, enabling analysts to field surveys twice as fast during the last two weeks of the 2020 US Presidential Cycle **resulting in hundreds of thousands in additional revenue**
- Conducted NLP experiments testing annotation approaches on open-ended text data, spanning thousands of responses

Rehabilitation Engineering Lab @ Lund University

Research Intern

Arduino, C++

May 2019 — June 2019

- Developed pulse-vibration communication device for deafblind children to allow them to safely interact with caregivers
- Delivered prototype to be tested by the National Knowledge Center for the Deafblind (NKCDB) in Sweden

Telecommunication Group @ ITESM

Research Assistant

Matlab

July 2018 — September 2018

- Conducted research on deterministic 3D ray-launching techniques to analyze smart parking wireless communication systems
- Wrote reusable scripts that automatically produced key metrics, reducing the time required to analyze data by 50%

Department of Statistics @ UBC

Research Assistant

R

June 2017 — September 2017

- Conducted research on the pitfalls of using linear regression models to analyze nonlinear phenomena
- Analyzed simulated datasets using regression techniques to identify cases where standard linear regression was inadequate

PROJECTS

Voting in the House: Scraped dataset of House roll call data from 1990 to 2022

Python 2022

Where Congress Went to School: Created a novel dataset of congressional biographies

Python 2021

Predict Football Games: Used FIFA ratings to predict Premier League results

Python 2019

Lightning Analysis Tool: Assessed transmission line designs, built for BC Hydro

VBA 2019

Reproducing McCrary(2008): Reproduced a seminal econometrics paper

R 2022

OTHER EXPERIENCES AND INTERESTS

Volunteer Work: Wayfinder at the UBC hospital, web development volunteer at The Ubyssey

Interests: Soccer (Liverpool), books (The Founders, The Undoing Project), podcasts (Acquired, FiveThirtyEight), movies (Goodfellas, The Princess Bride), TV (The Good Place, Succession)