

## EDUCATION

### Georgetown University

May 2025

Ph.D. Economics

TA: Economics Statistics, Political Economy

### University of British Columbia

November 2019

B.A.Sc Electrical Engineering & B.A. Economics

TA: Introduction to Probability

## INDUSTRY EXPERIENCE

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

Software Engineer I

Technical Analyst

Python, Django, React, PostgreSQL, R

September 2020 — July 2021

December 2019 — August 2020

- Core Product Development
  - Conceptualized and created an interactive tool to qualitatively code thousands of open-ended responses into quantifiable themes, delivering \$10M in public opinion research between 2019-2021
  - 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 half the time
  - Integrated AWS Mechanical Turk into the core product, reducing the time taken to use the service by 4x
- Methodological Testing and Prototyping
  - 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
  - Conducted NLP experiments testing annotation approaches on open-ended text data, spanning thousands of responses

## RESEARCH

### Rehabilitation Engineering Lab (Certec) @ 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 (NKADB) in Sweden

### Telecommunication Group @ ITESM

Research Assistant

Matlab

July 2018 — September 2018

- Conducted research with Dr. Leyre Azpilicueta on using 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%
- Produced 3D models of 4 campus spaces to test signal interference patterns, to assess wave propagation methods

### Department of Statistics @ UBC

Research Assistant

R

June 2017 — September 2017

- Conducted research with Dr. Edward Kroc on the pitfalls of using linear regression models to analyze nonlinear phenomena
- Analyzed simulated datasets using standard 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

**shahzoor.github.io:** Personal website

Python 2022

Jekyll 2022

**How to Gerrymander:** Reviewed mathematical models of gerrymandering in economics

Markdown 2022

**Where Congress Went to School:** Created dataset of congressional biographies from 1991 to 2020

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

## OTHER EXPERIENCES AND INTERESTS

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

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