

## 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 (*a tech-enabled public opinion research company*) Python, Django, React, PostgreSQL, R

Software Engineer I

September 2020 — July 2021

Technical Analyst

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 research between 2020-2021
  - Created a tool that allowed analysts to conduct segment-specific analysis twice as quickly
  - 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 weighting methodology for sample collection in consultations with the Statistician and the CTO
  - Streamlined data ingestion and collection to increase project capacity 4x by writing custom R packages and Python integrations with external vendor APIs
  - Built a prototype in response to increased business during the final two weeks of the 2020 election to enable analysts to deliver twice the work
  - Conducted NLP experiments testing annotation approaches on large volumes of open-ended text data

## RESEARCH

### Certec @ Lund University

Research Intern

Arduino, C++

May 2019 — June 2019

- Worked in the Rehabilitation Engineering Lab at Lund University to develop communication devices for deafblind children
- Delivered a prototype at the end of the project 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
- Reduced time required to analyze communications data by writing reusable MATLAB scripts that automatically produced key metrics
- Produced 3D models of various campus spaces to feed into

### 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 in R identifying cases where standard linear regression was inadequate

## PROJECTS

shahzoor.github.io: Personal website

Jekyll 2022

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

Python 2019

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

VBA 2019

How to Gerrymander: A review of mathematical models of gerrymandering in economics

Markdown 2022

Voting in the House: Compiled a large dataset of House roll call data from 1990 to 2022

Python 2022

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

Python 2022

## 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)