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Shahzoor Safdar

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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 — Vancouver, CA | September 2020 — July 2021
Software Engineer I — **Python, Django, React**

- Worked on a visualization interface using Visx reducing the time needed for preliminary data exploration by 2x
- Integrated an AWS service into the core product (backend and frontend) reducing the time taken to use the service by 4x
- Built a quick integration in response to increased business during the final two weeks of the 2020 election to enable our analysts to deliver 2x the work
- Helped build an interface that allowed users to process long surveys with thousands of responses
- Liaised with external vendors whose services we were considering; held these relationships once we were onboarded
- Conducted technical interviews for software engineering candidates

Avalanche Insights — Vancouver, CA | December 2019 — August 2020
Technical Analyst — **Python, R**

- Designed, implemented, and standardized weighting methodology for sample collection in consultations with the Statistician, the CTO, and a review of survey literature in the political polling space
- 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 using Shiny to show how a more automated ingestion process might work
- Conducted nlp experiments testing various annotation approaches on large volumes of open-ended text data using Spacy
- Made direct contributions to the engineering team by building some of these tools that I built and maintained externally directly into the core product

RESEARCH

Certec @ Lund University — Lund, SE | May 2019 — June 2019
Research Intern — **Arduino, C++**

- 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 (NKCDB) in Sweden

Telecommunication Group @ ITESM — Monterrey, MX | July 2018 — September 2018
Research Assistant — **Matlab**

- Did 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 a host of reusable MATLAB scripts that automatically produced key metrics
- Produced 3D models of various campus spaces to feed into the ray launching simulation tool

Department of Statistics @ UBC — Vancouver, CA | June 2017 — September 2017
Research Assistant — **R**

- Did 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 regression techniques were 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 1990-2022	**Python**	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)