Peter Bachman

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Education

Washington University in St. Louis

2021 - 2024

M.A. Political Science; Emphasis on Quantitative Political Methodology and American Politics

Utah State University 2021

B.A. Political Science; Minors in Japanese and Statistics

Professional Experience

Washington University in St. Louis

May 2022 - Present

Data Science Researcher

- Managed data processing workflows using Git.
- Maintained databases of Twitter posts and comments using **SQL**.
- Developed visualizations in **Python** and **R** to communicate statistical findings and enhance data interpretation.
- Analyzed, prepared, and summarized survey data and statistical findings.
- Combined various data sources into cohesive datasets for statistical analysis.
- Collaborated with graduate students to develop an **R** package for multidimensional scaling across multiple datasets.
- Utilized OCR and OpenAI's LLMs to extract and validate information from PDFs.

Washington University in St. Louis

August 2022 - Present

Assistant Instructor

- Assisted in teaching graduate and undergraduate political science courses in classes ranging from 10 to 100 students.
- Developed weekly assignments, problem sets, and exams to enhance student learning outcomes.
- Conducted a summer course focusing on applied statistical programming using **R**.

Research Experience

Washington University in St. Louis

August 2021 - Present

- Developed and trained machine learning models for text classification in legal texts.
- Collected, cleaned, and analyzed quantitative and qualitative data using **Python** and **R**.
- $\bullet \ \ Led\ several\ research\ projects\ investigating\ the\ behavior\ of\ Supreme\ Court\ Justices.$
- Presented research findings to local and national audiences.
- Compiled large-scale legal datasets to analyze the behavior of Supreme Court Justices.
- Relevant Coursework: Game Theory, Econometrics, Statistical Modeling, Machine Learning, Bayesian Modeling, Natural Language Processing, Causal Inference

Utah State University May 2019 - May 2021

- Assembled a large-scale database using a combination of API requests, **SQL** queries, and web scraping.
- Presented research projects and statistical findings to a diverse audience.

Skills

Languages: Python, R, SQL, HTML

Programs: Git, Tableau

Statistical Analysis: Regression Analysis, Bayesian Modeling, Topic Modeling, Word Embeddings, LLMs, Sentiment Analysis, Text Classification, Causal Inference