

## Skills

### Programming & Tools

Python | R | API Usage | HTML | CSS | Bayesian Model Averaging |  
JavaScript | ETL | SQL (PostgreSQL, MySQL, SQLite) | Git | LaTeX |  
Jupyter | Scikit-learn | Pandas | Numpy | XGBoost | NLP

## Experience

### Data Scientist

Maritz

November 2024 — present

Fenton, MO

- Engineered workflow to automatically deploy K-means clustering model to categorize consumer data, driving targeted marketing initiatives aimed at boosting engagement and sales
- Developed a comprehensive consumer analytics framework by refactoring legacy scripts into a modular Python codebase, enabling consistent calculation of 100+ behavioral metrics
- Deployed a XGBoost model to accurately forecast the timing of consumer activity, subsequently conducting A/B testing to inform business strategy
- Conducted detailed matching analysis to evaluate the effects of a promotional giveaway, demonstrating the impact of the promotional tactics

### Data Science Specialist

Scale AI

April 2023 — November 2024

Remote

- Developed end-to-end data science solutions for diverse use-cases (OCR, web scraping, NLP), providing functional examples and clear implementation guides
- Refactored LLM-generated code, improving functionality, efficiency, and adherence to best practices
- Provided in-depth evaluations of AI responses, delivering actionable feedback to improve model performance in fulfillment and presentation

### Computational Scientist

Washington University in Saint Louis

August 2017 — May 2024

Saint Louis, MO

- Designed an automated ETL pipeline for a **Twitter text experiment** with Python (`nltk`, `numpy`, and `scikit-learn`), populating hundreds of millions of tweets and replies into a SQL database
- **Published** multi-panel study exploring the impact of **fake news on political participation**, cleansing and analyzing data for 7500+ observations
- Managed data for large multi-survey study of **political advertisements**, collaborating with a multi-disciplinary team to develop informative visualizations using R packages like `ggplot2`
- Forecasted the 2020 presidential election, implementing **Bayesian model averaging** approach to combine predictions from various models (Random Forest, SVM, BART, Kernel Regression)

### Data Science Instructor

Washington University in Saint Louis

June 2020 — June 2022

Saint Louis, MO

- Delivered interactive, user-centered **data science courses** utilizing Python, Git, and JupyterLab
- Employed visual tools and practical examples in teaching Python and data visualization
- Supervised practical projects for Brown School of Public Health students', preparing them to clean, transform, interpret, and visualize data

Education

---

Ph.D. in Political science	Washington University in Saint Louis	2024
B.A. Political Science (Cum Laude)	Saint Louis University	2016