

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

November 2024 — present

Maritz

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

Data Science Specialist

April 2023 — November 2024

Scale AI

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

August 2017 — May 2024

Washington University in Saint Louis

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

June 2020 — June 2022

Washington University in Saint Louis

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