PHIL HENRICKSON

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SUMMARY

Data Scientist with scientific research background, strong communication skills, and years of industry experience in a client-facing role. Demonstrated experience in scoping, developing, and delivering data/analytics projects, with an emphasis on predictive modeling, causal inference, and data visualization. Accomplished public speaker with featured talks and presentations at conferences and meetups throughout the state of Wisconsin.

SKILLS

Languages and Tools

Proficient: R, Python, Git/GitHub, SQL, Quarto, Shiny, Markdown, Tableau, Alteryx
Intermediate: Docker, GCP/AWS/Azure
Selected Coursework: Applied Machine Learning, Causal Inference, Statistical Learning, Maximum Likelihood Estimation, Time Series, Research Design, Survey Design

EDUCATION

Florida State University Tallahassee, FL
Doctor of Philosophy: Political Science
Dissertation: *Applied Predictive Modeling for Measurement and Inference in International Conflict and Political Violence*

Texas A&M University College Station, TX
Bachelor of Science: Political Science

EXPERIENCE

AE Business Solutions 2019-Present
Senior Data Scientist Madison, WI

- Work in a client-facing, project delivery role for data science and analytics use cases across a variety of industries in the public and private sector
- Serve as technical liaison between data science teams and senior leadership, translating complex analyses into actionable recommendations to inform strategic decisions
- Building data pipelines and deploying predictive models within DevOps frameworks
- Assess organizational practices for data science and audit models for performance, fairness, and bias
- Deliver hands-on training and "office hours" advising for clients on topics within the fields of data science

AE Business Solutions 2018-2019
Business Intelligence Engineer Madison, WI

- Developing interactive dashboards and data visualizations to communicate insights and statistical methods to general public
- Training business and data analysts in research methods, data preparation, and data visualization (R, Alteryx, Tableau)

Florida State University 2013-2018
Research Assistant Tallahassee, FL

- Performed statistical modeling in R and Stata for prediction and hypothesis testing in social science research.
- Assisted professors by collecting, cleaning, and preparing data sets for data visualization and presentation in academic research papers.
- Literature reviews of sub fields in international relations, comparative politics, statistics, and computer science.

Instructor

- Created original syllabi and lecture materials for Political Violence, Civil Wars, and International Relations classes.
- Assigned semester-long research papers, working with students to develop their academic writing skills and mentor their applications for graduate school.
- Taught programming with R to graduate students and held supplementary sessions for statistical modeling and programming.

PERSONAL PROJECTS

Most of my work with clients is under NDA, making it difficult to provide detailed examples of my work. I do, however, frequently work on side projects in my free time to explore new methods and techniques that I can use in my consultant work. Here are some examples:

Predicting Upcoming Board Games 2022-2023

- Created package for collecting BoardGameGeek (BGG) data to train predictive models at the BGG community level (complexity, average rating, etc) for upcoming board game releases
- Trained predictive models for individual users to recommend new games to individuals based on their collections.
- Developed pipelines to collect data on upcoming releases and deliver predictions from a suite of models (penalized linear regressions, xgboost, lightgbm) via GitHub Actions, Google Cloud Storage, and Quarto

College Football Predictions and Rankings 2024

- Estimating opponent-adjusted team offensive/defensive efficiency for all FBS teams at the weekly level using play by play data and predicted points added per play.
- Use team efficiency ratings as inputs into my (Bayesian) game prediction model to estimate team ratings and simulate upcoming college football games.