Andrew Fogarty

For applied ML/stats demos, visit: seekinginference.com

Active TS//SCI Clearance

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PROFILE

I am a data and political scientist that enjoys translating research puzzles into inference and opportunity in a wide variety of contexts from armed conflict to business. Faced with observational data limitations, I enjoy using multi-methods to grapple with prediction and causal inference.

EDUCATION

University of California, Berkeley
Master of Information and Data Science   *All But Capstone: December 2020*

University of Virginia
Master of Political Science   *2015-2017*

METHODS

Statistical Models: Linear, Unordered Categorical, Ordered Categorical, Binary, Count, Survival, Time Series, Time Series Cross-Section, Multiple Imputation, Numerical Optimization
Machine Learning Models: K-Nearest Neighbors, Decision Trees, Naive Bayes, Support Vector Machines, Neural Networks, Dimensionality Reduction, Cluster Analysis
Qualitative: Research Design and Causal Inference, Comparative Methods, Essential Empirical Methods
Programming: Python, R

KEY PROJECTS

Research and Analysis: Translated research puzzles into insight and opportunity for U.S. Government and military action through 44 written assessments that include case studies, comparative analysis, executive assessments, visual intelligence products, and statistical graphs.
Taliban Mobility: Conducted causal inference research on the determinants of a military group's mobility across geographic units and time using a time series cross-sectional linear model, treatment and control case studies, and custom maps. This research influenced the President's Daily Brief, was cited in defense of the U.S. National Intelligence Estimate's key judgments, and was selected for presentation at a data science conference.
Cities Under Attack: Proposed causal explanations for why cities in Afghanistan are attacked using a time series logit model, treatment and control case studies, and dashboards to animate time series data. This research was selected for presentation at a data science conference.
Enemy at the Gates: Delivered novel cross-sectional research through interactive graphics and visual executive summaries that estimated the most important factors associated with the deaths of tens of thousands of allied foreign military forces in Afghanistan.
Conflict Mapping: Used deep learning models to predict territorial control labels to extend a novel data set used for time series analysis and mapping. This research was selected for presentation at a data science conference.

WORK EXPERIENCE

National Ground Intelligence Center   Charlottesville, VA
Intelligence Specialist   *2010 - Present*

Technical: Provided technical consultation to my colleagues on methodological matters such as overcoming non-random assignment to treatment, data summation, data visualization, data gathering strategies, hypothesis testing, and research design.

Customer Service: Tailored customer service support to a wide variety of military and government leaders at tactical, senior, and executive levels for over a decade via in-person training and video conferences.

Leadership: Led individuals and groups of analysts at all stages of analysis from research design to data collection, data coding, and drafting key judgments in order to produce a series of insightful and superior collaborative assessments

Innovative: First analyst to publish interactive intelligence assessments via state-of-the-art data science methods at NGIC. To view my programming, replicate my research, review my coding criteria and coding justifications, and view ongoing live analysis, please see my JWICS GitHub: github.devops.cia.ic.gov/frfogap-USA/

Performance: Surpassed 70% of the workforce in every yearly evaluation which identified my work quality, ethic, professionalism, and capability as "above average" or "superior".