Graham Alexander Noblit, Ph.D.

(647) 855-7894 · GrahamNoblit@pm.me

linkedin.com/in/graham-noblit · www.GrahamNoblit.com · github.com/gnoblit

Adaptable data scientist with five years of experience (R, Python, & Julia) managing projects and answering stakeholder driven questions using multi-modal and messy observational data, interpretable models and causal inference, and machine learning

SKILLS

Python (Numpy, Scikit-learn, Pandas) · R · Julia · SQL · Git · Econometrics & Statistical Inference · Causal Inference & Experiment Design · Artificial Intelligence (Machine Learning & Reinforcement Learning) · Data Mining & Processing · Data Visualization (ggplot2, matplotlib) · Geospatial Data · Survey Design & Analytics · Game Theory

PROFESSIONAL EXPERIENCE

Schwartz Reisman Institute for Technology and Society: University of Toronto   Toronto, ON
Vector Institute for Artificial Intelligence, Affiliate
Post-Doctoral Scientist   2022-Present
- Design and program computational game-theoretic models explaining normative change, with applications for emergent cooperative behaviors in multi-agent reinforcement learning, resulting in a scientific publication
- Develop and maintain oversight of collaborative research project and survey questions studying legal order in Kenya
- Mentor a Ph.D. student and co-direct and lead weekly Schwartz Reisman Graduate Fellows' meetings planning a research workshop advancing interdisciplinary artificial intelligence research
- Co-plan & develop themes & speakers for interdisciplinary conference (100+ attendees) on artificial intelligence

Research Consultant and Project Manager (Volunteer), Remote   2019-Present
- Provide statistical consultation and analyses and collect and clean data included in several research publications on psychological variation in China, for researcher at the University of Chicago: Booth School of Business
- Design research project, oversee project-pipeline, and develop & statistically analyze survey questions studying political psychology in China, with researcher at the University of Chicago: Booth School of Business
- Design research procedures and survey questions for Rare (global nonprofit organization) for project on fishery sustainability and behavioral change in the Brazilian Amazon
- Provide Cultural Evolutionary expertise for DeepMind, contributing to design and publication of reinforcement learning algorithm permitting agents to learn norms and cooperative behaviors

Harvard University   Cambridge, MA
Doctoral Researcher (Computational Social Science/Cultural Evolution)   2016-2022
- Researched human behavioral, psychological, and institutional evolution, using statistical and machine learning, game-theoretic, and computational methods, producing three scientific articles
- Collected, cleaned, merged, processed, and maintained large and small datasets
- Statistically analyzed multiple types (survey, economic, climatic, historical) and scales (individual, household, administrative, geospatial) of observational data using spatial and non-spatial hierarchical mixed-effect and fixed-effect linear models, causal inference (instrumental variables), and linear and non-linear (MVAOS) PCA
- Designed and maintained several multi-year, end-to-end project pipelines: identifying research questions; gathering, cleaning, and processing data; coding and performing statistical analyses; authoring reports; and presenting results
- Presented complex research results to technical and non-technical audiences (~5-50 people), including academic labs, interdisciplinary research groups, and a leading disciplinary international conference

Teaching Fellow   2018-2021
- Head Teaching Fellow (**Introduction to Statistics**: 2019-2021): managed teaching teams of 5-9 teaching assistants
- Taught data-science (R): exploratory data analysis; feature engineering and selection; hypothesis testing (general linear models); under- and over-fitting, model validation and selection; and interpreting and presenting results
- Taught and led discussions on technical concepts in statistics and artificial intelligence to classes of ~30 students
- Led in-person and online instruction using Zoom

EDUCATION

Harvard University, Ph.D. in Human Evolutionary Biology, Cambridge, MA   May 2022
   Coursework: Statistics, Econometrics, Data Science and Machine Learning, Computational Modeling, Game Theory
University of Texas at Austin, B.A. in Anthropology, Minor in Mathematics, Austin, TX   May 2012