Beniamino Green

662 Orange Street, New Haven, CT 06511
Email: beniamino.green@tutanota.org | *Tel:* +1 (425) 985-2246 | Github

Social Data Scientist passionate about quantitative research and numerical methods. Skilled at using Python, R and Rust for quantitative analysis and development.

Professional Expeience

2022-Present | Pre-Doctoral Fellow
Yale University
Applying and developing new methods at the intersection of Machine Learning and Causal Inference, with special attention to applications to Medicaid management.

Education

2021-2022 | Masters in Social Analysis and Research
Brown University
4.0 GPA

2018-2021 | Philosophy, Politics and Economics with Data Science, B.Sc.
University College London
First Class Honors

Academic Experience

2022 | Teaching Assistant, Multivariate Statistics II (Graduate Level)
Sociology Department, Brown University
Developed materials for and led weekly labs on regression techniques including GLMs and discrete choice models.

2021-present | Research Assistant Work
For Julie Norman, UCL Department of Political Science
Conducted analysis on survey experiment data investigating whether survey respondents are more likely to endorse an act of political violence which aligns with their ideological predispositions.

2021-present | Research Assistant Work
For Andrew Michael Bell, Indiana University
Analyzed data from survey experiments to understand how veterans' commanding officers' leadership styles impacted unit behavior when deployed.

Projects

- Zoomerjoin R package
- **Cragg R Package** an implementation of the Cragg-Donald and Stock-and-Yogo tests for weak instruments in R. Currently receives between 300-500 downloads per month.
- **Quadrangle Use Tracker:** A remote sensor using the YoloV5-Deepsort object-detection library to track the number of people using a Brown University quadrangle and upload data to a cloud database. Data was subsequently analyzed using Gaussian process modeling implemented in the STAN programming language.

Methods Training

- **PHP2530: Bayesian Statistics**: Training in Bayesian statistics with an emphasis on numerical approaches, including coverage of the EM algorithm, Gibbs sampling, MCMC, and importance sampling.
- **APMA1460: Introduction to Computational Linear Algebra**: Fundamental algorithms in computational linear algebra with special focus on numerical stability.
- **POLS0012: Causal Methods**: Observational designs (regression, matching), quasi-experimental methods (instrumental variables, and regression discontinuity designs), and panel-data methods (difference in differences, synthetic control methods).
- **APMA1420: Recent Applications of Probability and Statistics**: Maximum entropy principle for systems and large deviations, bias-variance dilemma in nonparametric inference, and computational methods for estimating graphical models.
- **CSCI1420: Machine Learning**: Tree methods, boosting approaches, naive bayes, SVM's and neural networks.
- **POLS0013: Measurement in Political Science**: Foundational measurement and dimension-reduction methods in the social sciences, including PCA, EFA, and item response methods.
- **SOC2240: Event History Methods**: Modeling for time-until-event problems, including Kaplan-Meier product-limit estimates, discrete-time logit models, and Cox proportional-hazards regression models.
- **POLS0010: Data Analysis**: Data analysis and statistics in R, with special emphasis on regression models (logit regression, hierarchical models, MRP), and text analysis.
- **PHP2550: Applied Data Analysis**: Simulation methods, bias-variance dilemma with a focus on regularized regression methods.

Skills

Programming Languages — Python, R, Rust, Unix Shell / Bash, MC-STAN
Markup Languages — LaTeX,Sweave, R-Markdown, HTML, CSS, Markdown, Groff
Prototyping — Familiar with Arduino, Jetson Nano and Raspberry-pi architectures for development
Frameworks and Tools — Git, Linux, Django, Vi/Vim, Office Suite, Heroku CLI, Travis-CI, Fusion 360