Robert K. Teresi

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Skills

Causal Inference
Experimental Design
Regression Modelling
Supervised Learning
Feature Engineering
NLP

Web Scraping
OOP
Algorithms + Data Structures
Bayesian Simulations
Multithreading

Python :
- *NumPy/Pandas*
- *SciKit-Learn/Tensorflow*
- *PySpark*
- *Seaborn*

R :
- *Dplyr/Data.table*
- *Carat/Glmnet*
- *Ggplot2*
- *Shiny*

C++ · Java · Javascript: (Vanilla, React/React Native, and D3 Frameworks) · Stata · SQL · Git · Bash · LaTeX· Microsoft Office · G Suite
Language: Fluent in German · Proficient in Spanish · Limited Proficiency in French

Relevant Coursework

- Econometrics
- Applied Empirical Methods (*Yale SOM Ph.D.*)
- Linear Algebra
- Ordinary Differential Equations (*Rutgers University*)
- Calculus III
- Statistical Machine Learning (*Universität Heidelberg*)

Experiences

Research Associate / Data Scientist — July 2019 - Present

Yale University – School of Management

- Lead data and programming research associate for the Organizational Behavior department at the Yale School of Management.
- Constructed robust dataset from raw Yale New Haven Hospital data, used *Plotly* to create custom and innovative visualizations, fitted neural networks with *Tensorflow* to create an exogenous predictor of physician speeds, and ran regressions to causally show how physician team characteristics affect patient outcomes in *Optimizing Emergency Department Physician Staffing: Speed Synergies and Demand Matching (Sangal, Teresi, King).*
- Wrote algorithm for logistic LASSO classifier and co-wrote corresponding section of paper for *Detrimental Effects of Organizations' Instrumental Diversity Rhetoric for Underrepresented Group Members' Sense of Belonging (Georgeac, Ratton, forthcoming).*
- Wrote C++ disambiguation algorithm to differentiate authors with same last name over approximately 28 million Pubmed medical journal articles, creating unique author IDs across articles.
- Built automatic surveys-sending service for Yale New Haven Hospital System health care professionals at the end of their shifts as part of **study** designed to mitigate burnout during the COVID-19 Pandemic. Code gifted to hospital for use in other ongoing studies.

Research Assistant — April - September 2018, May - August 2019

University of Notre Dame - Department of Economics

- Collaborated with Economist Illenin Kondo, Ph.D., researching trade, urban economics, and mathematical inequality metrics.
- Performed mathematical analysis on inequality measures, writing the decomposition of key measures and redefining them in terms of various continuous probability distributions. Ran and graphed simulations using R to visualize dissimilarities between measures.
- Built off leading models of trade, ran regressions with instrumental variable, difference-in-difference, and triple difference-in-difference designs. Ran placebo regressions to address possibility of autocorrelation affecting significance of results.

Economic Research Intern — October - December 2018

Illinois Policy Institute

- Conducted research for nation's largest state-based think tank, completing projects on theories of property tax, wages and migration, and the effects of Right To Work on voting behavior, respectively.

Education

University of Notre Dame — August 2014 - May 2018

Bachelor of Arts, Economics
Glynn Family Honors Program Student
Senior Honors Thesis: *"Economic Diversification and the Decline of American Manufacturing Towns"*
(Honorable Mention for **Bernoulli Award** for best applied statistical thesis across all undergraduate disciplines)