

Education

Indiana University

Bloomington, IN

M.A. Economics – concentrations in Computational Macroeconomics and Econometrics 2014 – 2017

Indiana University

Bloomington, IN

B.S. Mathematics, B.S. Physics – Graduated with distinction 2006 – 2010

Skills

- **Analysis and Modeling Software:** R, Stata, some experience with SAS, Matlab, some experience webscraping with Selenium WebDriver library
- **Programming:** Python, SQL, Fortran, some experience with C and C++
- **General Computing:** Microsoft Office, Linux, Vim, L^AT_EX, some experience with Git
Experience using computing clusters (Karst) and supercomputers (Big Red II)

Experience

Associate Instructor

Bloomington, IN

*Indiana University**August 2015 – May 2018*

- Taught Statistics (4 semesters), Game Theory (2 semesters), and Public Speaking (2 semesters)
- Lectured and created assignments and exams for approximately 20 students each semester

Economic Research Assistant

Bloomington, IN

*Indiana University School of Public and Environmental Affairs**May 2017 – January 2018*

- Automated data collection process, using Python with Selenium to scrape public websites, reducing collection time from weeks to days
- Used R with dplyr and tidyr packages to clean data sets on state prescription drug laws
- Used SAS on IU's computing clusters to clean and analyze hospital data sets, approximately 1GB

Master's Thesis

Bloomington, IN

*Indiana University**August 2016 – June 2017*

- Analyzed medical expenditure data from MEPS using kernel smoothing methods with Stata and R with the np package
- Modeled effects of changes to Medicare on medical expenditures by solving a non-linear optimization problem using Python and Fortran with the NLOPT module
- Presented findings at the Jordan River Conference

Coursework

Bloomington, IN

*Indiana University**August 2014 – May 2017*

- Estimated and evaluated models such as VAR, ARIMA, GARCH, Logit, Probit, IV, Fixed Effects
- Used a Regime Switching Model to analyze recessions and the labor market for a group project
- Made forecasts by estimating VAR models with macroeconomic time-series data, estimated models using Bayesian techniques such as MCMC, and solved high dimensional dynamic programming problems using sparse grid methods and PCA