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Tyler Smith
https://tjs8cc.github.io

Education

Indiana University — Bloomington, IN
M.A. Economics – concentrations in Computational Macrecoonomics 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, LaTeX, 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