

JOE PATTEN

Economist, Data Scientist, PhD Student

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WORK EXPERIENCE

WeWork

Research and Applied Science Intern

Jan 2020 – Jul 2020 Palo Alto, CA

- Designed and administered experiment to estimate and recommend revenue-maximizing prices at China WeWork locations
- Used a combination of economic theory and machine learning methods (such as logistic regression, xgboost, clustering, etc) to aid in algorithmic pricing of office units

Ben Cowan and Jon Yoder, Washington State University

Graduate Research Assistant

May 2017 – Dec 2019 Pullman, WA

- Devised causal inference approaches and analyses for various projects in Economics of Education and Developmental Economics.
- Built, cleaned, and ran econometric analyses on large datasets (10 million+ observations), high dimensional datasets (1000+ variables), and confidential datasets using Python, R, and Stata

Brent Hickman, The University of Chicago

Research Assistant

Jan 2014 – Dec 2014 Chicago, IL

- Assisted in the design and implementation of affirmative action field experiment in Chicago that later appeared in FiveThirtyEight
- Built, cleaned, and analyzed datasets containing student data from several schools

Joe Price, Brigham Young University

Research Assistant

Aug 2013 – Dec 2014 Provo, UT

- Hired and supervised 10 undergraduate students to assist in affirmative action field experiment in Utah
- Implemented various econometric techniques to evaluate topics in Labor Economics and Economics of Education

RELEVANT GRADUATE COURSEWORK

Machine Learning Data Science Artificial Intelligence
Big Data Advanced Graph Theory Advanced Algorithms
Statistical Computing Econometrics I-IV Graduate Statistics

EXPERTISE

Causal Inference Statistics
Machine Learning Experiments
Data Visualization (D3.js)

EDUCATION

PhD, Economics

Washington State University

May 2021 (Expected)

- GPA: 4.0/4.0
- Focuses: Econometrics, Labor Economics, Economics of Education

MS, Computer Science

Washington State University

May 2021 (Expected)

- GPA: 4.0/4.0

BS, Kinesiology

Brigham Young University

2012

- GPA: 3.8/4.0, Cum Laude

SKILLS

Python Javascript (D3.js) R Stata
Spark SQL Git Linux

PROJECTS

- Estimating Effects of Community College Spending on Nearby For-Profit Enrollment using Panel and Time Series Methods
- Using Reinforcement Learning for Automatic Exploration and Execution in a Game
- Generating Esports Prediction Using Monte Carlo Simulation and Random Forests
- Creating a Recommender System with Amazon Big Data using AWS