WILLIAM (WEI) ZHU

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Education

The University of Chicago (Chicago, IL)
MA Computational Social Science (STEM), Quadrangle Scholar, GPA: 3.8/4.0 *June 2022 (Expected)*
Relevant Courses: Python Programming, Perspectives on Computational Analysis, Competitive Strategy (Booth)
Current Courses: Introduction to Machine Learning, Causal Inference, Computational Content Analysis

Haverford College (Haverford, PA)
BA Sociology, Minor in Statistics, GPA: 3.73/4.0, GRE: V:165 Q:167 W:5.0 *May 2019*
Relevant Courses: Financial and Managerial Accounting, Applied Multivariate Statistical Analysis, Linear Algebra, Probability, Qualitative Methods, Econometrics, Class Race and Education

Work Experience

Westat (Rockville, MD)
Research Assistant (Full-time) *July 2019 – June 2020*

- Received "Exceptional" (highest rating) at yearly performance review in all 8 education evaluation projects by performing tasks including data analyses (in R and Excel), literature review, interviews, and report writings.

Improving the Use of Research Evidence [funded by William T. Grant Foundation]

- Saved project budget by $30K by compiling datasets using R tidyverse 2 months ahead of schedule from the National Center for Education Evaluation (NCEE) restricted-access database.
- Performed data imputation using regression tree and hot-deck imputation. Built models using LASSO to predict the effectiveness of school intervention programs on other schools (Project on hold due to Covid).

Meta-analysis of dropout prevention program

- Explored meta-analysis techniques by analyzing evaluation data on dropout prevention programs in four states.
- Published an article as the third author titled "Using state data sets and meta-analysis of low-powered studies to evaluate a school-based dropout prevention program for students with disabilities" at *Studies in Educational Evaluation*.

Racial Equity Action Leadership (REAL) Program Evaluation

- Performed participant observations at a series of monthly workshops where 30+ regional corporate leaders learn and discuss methods to improve racial equity in organizations.
- Found that the workshop program is effective at guiding participants to craft racial equity plan for their companies by organizing 2 focus groups and administering 10 surveys. Co-authored in the final evaluation report.

Projects

Predict Employee Attrition (Kaggle Project) *December 2020*

- Achieved a prediction score of 0.876 using XGBoost algorithm (Python scikit-learn) to predict employee attrition from IBM HR Analytics dataset (1470 rows, 79 variables).
- Compared prediction performance among logistic regression, Naïve Bayes, KNN, Random Forest, and Radial SVM.

Speech Recognition System *(UChicago course project)* *November 2020*

- Developed a speech recognition program in Python using Markov models. Compared performance between the data structures of hash tables and dictionaries.

Innovation and Democratization *(Haverford College Senior Thesis| Advisor: Mark Gould)* *July 2018 – May 2019*

- Received 4.0 (highest grade) by conducting a year-long text-based research project on the impact of the semiconductor industry to Taiwan's democratization in the 1980s. Authored a 21,000+ word research paper.

Achievement Gap and Race *(Haverford College course project)* *January 2017 – May 2017*

- Authored a research paper titled "The Skew of Pathways: The Structural Explanation for the Asian American Academic Achievements"; Presented at the 2019 American Sociological Association (ASA) Annual Meeting in the New York City.

Skills & Interests

Skills: R (tidyverse), Python (NumPy, pandas, seaborn, scikit-learn), SQL, Latex, HTML/CSS, Microsoft Office
Interests: Reading books about organizational behavior, strategy, and management (finished 60 books in 2020)