

# WILLIAM (WEI) ZHU

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## Education

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### 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, Algorithms, Competitive Strategy (Booth), Computational Content Analysis, Computational Modelling, Deep Learning

### Haverford College (Haverford, PA)

BA Sociology, Minor in Statistics, GPA: 3.73/4.0

May 2019

## Work Experience

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### Polsky Center for Entrepreneurship and Innovation (Chicago, IL)

Small Business Growth Student Consultant (part-time)

Jan 2021 – March 2021

- Developed go-to-market strategies for a motorcycle safety vest vendor by conducting interviews and surveys
- Present research findings and recommendations at weekly team meetings and 3 client meetings

### 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

#### Project Highlights at Westat:

Meta-analysis of Dropout Prevention Program [[publication link](#)]

- Published an article (third author) titled “Using state datasets and meta-analysis of low-powered studies to evaluate a school-based dropout prevention program for students with disabilities” in *Studies in Educational Evaluation*
- Demonstrated that dropout prevention programs in four states are ineffective using meta-analysis techniques

Improving the Use of Research Evidence [[project link](#)]

- Saved project budget by \$30K by compiling datasets using R 2 months ahead of schedule
- Built LASSO models to predict the effectiveness of school intervention programs on other schools

Racial Equity Action Leadership (REAL) Program Evaluation [[project link](#)]

- Discovered that the REAL program is effective at guiding 30+ participants to craft racial equity plan for their companies by performing participant observations, organizing 2 focus groups, and administering 10 surveys
- Co-authored the final evaluation report that contributed to the REAL program’s continued funding

## Projects

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Impact of CEO Turnover on Company Culture [MA Thesis project; [GitHub link](#)]

Jan 2021- present

- Analyzing how CEO turnovers affect company cultural change using Glassdoor company review data
- Employing textual analysis techniques including divergence metrics (Kolmogorov-Smirnov, Wasserstein), word embeddings (word2vec), and classification methods (Logit, SVM, KNN, Random Forest, Boosting)

Predicting Employee Attrition [Kaggle Project; [GitHub link](#)]

December 2020

- Achieved a prediction accuracy of 0.876 using XGBoost to predict employee attrition (1470 rows, 79 variables)
- Discovered that working overtime and low environment satisfaction are important causes of employee attrition

The Effect of Parenting Strategies on Video Games [Haverford College course project]

May 2019

- Demonstrated that “compassionate parenting” is strongly associated with kids’ low video game playing time, while “authoritarian parenting” is not, by building linear models from American Youth survey data using R

## Skills

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- R (tidyverse, caret), Python (NumPy, pandas, scikit-learn), SQL, Latex, HTML/CSS
- Linear Regression, Logit, LDA, QDA, SVM, KNN, decision tree, random forest, boosting, PCA, clustering
- Hypothesis Testing, A/B Testing, Cross-Validation, Bootstrapping, Model selection and regularization