WILLIAM 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, Machine Learning, Deep Learning, Text Analysis, Algorithms, Databases, Large-Scale Computing, Competitive Strategy (Booth), Marketing Strategy (Booth)

Haverford College (Haverford, PA)

BA Sociology, Minor in Statistics, GPA: 3.73/4.0   *May 2019*

Work Experience

RealEats (Geneva, NY)

Data Analytics Consultant (part-time, remote)   *September 2021 – present*

- Extracting insights in consumer behavior for a weekly meal subscription service by compiling customer databases on AWS Redshift, building dashboards on Google Data Studio, and driving customer segmentation research

Data Science Intern (remote)   *June 2021 – September 2021*

- Provided strategic support to the CMO by identifying top customers attributes using logistic regressions and decision trees; compiled a customer dataset using Python and SQL from sources including sales records, Google Analytics API, U.S. Census, gender-guesser Python package, and Zillow home value index
- Saved 24 hours of CFO and VP of Operations' time per month by automating Python scripts on AWS Sagemaker and building customized cohort analysis dashboards on Google Data Studio
- Provided recommendations to the marketing team on discount strategy by identifying promo codes associated with high average order value (AOV) and customer retention rates
- Presented findings at 8 meetings with the CFO, CMO, VP of Operations, and Director of Growth

Westat (Rockville, MD)

Research Assistant (full-time)   *July 2019 – June 2020*

- Received the highest performance rating for all 8 evaluation projects by performing data analysis in R and report writings for clients including U.S. Department of Education, Verizon, and National Science Foundation
- Co-authored an evaluation report to show that Racial Equity Action Leadership (REAL) Program is effective at guiding 30+ participants to craft company-wide racial equity plan via 8 participant observations and 10 surveys

Projects

Exploring Variations in Divvy Bike Station Usage Volume [5-min presentation, blog post]   *March 2021 – June 2021*

- Demonstrated that public bike share stations' usage rate are linked to crime rates, socio-economic status, network effect and demography using linear regressions; compiled a station dataset from sources including 300K Divvy bike trip records, 210K Chicago crime records, 11K bus stops records, U.S. Census, and Zillow home value index

Uncovering Links between Cultural Values and Company Directions [5-min presentation]   *March 2021 – June 2021*

- Demonstrated that firms with an agile culture are more likely to initiate share buyback, attract private placement, and receive M&A offers within one year by measuring keyword frequencies of 4 million Glassdoor employee reviews from 6K firms in the U.S.; applied logistic regressions to control for firm size, location, and average ratings
- Matched 20K company names between S&P Capital IQ and Glassdoor employee review databases by constructing a customized string similarity measure based on the fuzzywuzzy Python package

Publication

Munk, Tom, Ning Rui, **William Zhu**, and Elaine Carlson. "Using state data sets and meta-analysis of low-powered studies to evaluate a school-based dropout prevention program for students with disabilities." *Studies in Educational Evaluation* 68 (2021): https://doi.org/10.1016/j.stueduc.2020.100969

Skills

- Python, R, SQL, AWS (Redshift, Sagemaker), Google Analytics, Data Studio, Git/Github, Latex, HTML/CSS
- Linear and Logistic Regressions, KNN, Random Forest, PCA, clustering, Cross-Validation, Model selection