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, Database, Large-Scale Computing, Competitive Strategy (Booth), Consumer Behavior (Booth)

Haverford College (Haverford, PA)

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

May 2019

Work Experience

RealEats (Geneva, NY)

Data Science Intern (remote)

June 2021 – present

- Improved the 2-months net revenue per customer by 4% for a meal subscription service by identifying promo codes associated with high customer retention rates and average order value; proposed experiments for validation
- Identified demographic characteristics of top customers using logistic regressions by compiling a customer-level dataset from sources including sales records, Google Analytics API, U.S. Census, and Zillow home value index
- Built a cohort analysis dashboard on Data Studio by writing and automating python scripts on AWS Sagemaker
- Presented findings at 5 meetings to the CFO, CMO, VP of Operations, and Director of Growth

Polsky Center for Entrepreneurship and Innovation (Chicago, IL)

Small Business Growth Consultant (part-time)

Jan 2021 – March 2021

 Recommended a motorcycle safety vest producer to launch an e-commerce website by conducting 4P, competitor, and customer segmentation analysis; presented findings at 2 meetings to the CEO

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 a <u>journal article</u> 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*
- Co-authored an <u>evaluation report</u> 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 observation sessions, 10 surveys, and 2 focus groups

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 strongly linked to crime rates, socio-economic status, network effect and demography by compiling a station-level dataset from 7 databases including 300K Divvy bike trip records, 210K Chicago crime records, 11K bus stops records, U.S. Census, and Zillow home value index

Uncovering Linkages 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.
- 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

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
- Hypothesis Testing, Cohort Analysis, Customer Segmentation, Network Analysis, Text Analysis