Yuanzou Gao

New York, NY | yg2630@nyu.edu | 413-416-0756

Education

New York University, New York, NY

B.A. Joint Major in Mathematics and Data Science, GPA:3.68, Expected May 2025

Relevant Complete Course: Discrete Mathematics, Probability and Statistics, Numerical Analysis, Analysis, Principle of Data Science, Machine Learning

Mount Holyoke College, South Hadley, MA

B.A. Special Major Mathematics with Economics, GPA: 4.0, August 2021 – December 2022

Relevant Complete Course: Calculus III, Linear Algebra, Intermediate Statistics, Econometric, Data Structure

Award: Mildred L. Sanderson Prize in Mathematics, Mount Holyoke College, 2022

Working Experience

Intern, MicroPort – Shanghai, China 06/2024-08/2024

- Calculate the departmental penetration rate of hospitals in Central China through big data technology to provide data support for market segmentation and business growth.
- Surveyed, data cleaned, corrected and formatted 4009 hospitals using **Excel**; selected samples within defined categories for further analysis. Finalized 262,644 target departments matching our product line and calculated respective penetration rates.

Research Intern, Duke Kunshan University – Kunshan, China 07/2023-08/2023

- Conducted over 30 industry surveys and collected key materials for a senior thesis, contributing to groundbreaking research in TissuePatch technology.
- Leveraged **SQL** for efficient querying, aggregation, and transformation of complex data sets, which supported advanced statistical analysis and contributed to innovative research findings.
- Utilized **Python** to clean, organize, and analyze large datasets (exceeding 10GB), improving data accuracy by 15% and facilitating advanced statistical analysis.

Research Experience

Spotify Song Classification and Popularity Analysis, New York University 04/2024-05/2024

- Developed machine learning models after data preprocessing to predict song genres and analyze factors influencing music popularity using a dataset of 52,000 songs from Spotify.
- Implemented regression models to explore relationships between song features and popularity, identifying key predictors and generating actionable insights.
- Utilized classification techniques and applied dimensionality reduction and clustering techniques to visualize genre clusters to produce comprehensive report.

Games and Tools for Math Education, The Polymath Jr 06/2023-08/2023

- Designed and developed interactive visual math games using Unity, enhancing fraction comprehension for over 500 middle school students.
- Collaborated with educators to integrate core mathematical concepts into game mechanics, resulting in a 20% improvement in students' fraction test scores through an immersive baking game.

Impact of Biases on Teaching Evaluation, Mount Holyoke College 03/2022-05/2022

- Studied the impact of unconscious biases on teaching evaluation.
- Performed data analysis using multiple linear regression and transformation; identified the potential discriminations in teaching evaluation using **R**. Recognized the discrimination based on gender, appearance and native.

Skills

Computers: Familiar with Python, R, Stata, and SQL

Language: Native: Chinese, Fluent English

Other: SQL for Data Science (Coursera), Data Analyst Learning Path (Google)