Yuexin (Joy) Wang

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Education

University of Michigan—Ann Arbor *August 2023 – May 2026*
BS in Statistics & Economics

Shanghai Jiao Tong University *May 2024 - August 2024*
Exchange student

Shanxi Universitiy *September 2021 - May 2023*
Major in Tourism Management

Cornell University *July 2022 - August 2022*
Program: Cornell Institute for China Economic Research (CICER)

Courses: *Calculus, Linear Algebra, Probability, Money and Banking, Applied Regression Analysis, Bayesian Data Analysis, Financial Accounting, Microeconomics, Macroeconomics, Game Theory, Strategy, Doctoral Seminar in Contemporary Accounting Issues, Experiments in Economics*

Research Experience

How do employees respond when their marginal tax rates exceed 100%? *Ann Arbor, MI*
Research Assistant at Ross School of Business, University of Michigan – Ann Arbor to Professor James Omartian *March 2025 - Present*

- We find that employees substantially reduce labor participation when marginal tax rates exceed 100%, highlighting severe distortions from high effective taxes.
- Constructed a harmonized dataset by integrating and cleaning SIPP, ACS PUMS, CPS ASEC, SNAP, and PRD data in R, aligning over 7,000 variables to enable accurate marginal tax-rate estimation.
- Streamlined research operations with YAML-driven workflows and detailed documentation, cutting onboarding time over 25% and enhancing reproducibility.
- Designed and implemented a cost-sensitive simulation model in R to identify marginal tax events exceeding 100%, generating actionable insights for policy analysis.

Opportunity Cost Salience and Effort Allocation Experiment *Ann Arbor, MI*
Undergraduate Research Project, Project Leader *August 2025 - Present*

- Findings show that making the opportunity cost of time salient reduces willingness to choose higher-effort tasks, revealing a higher implicit valuation of time.
- Designed the experimental survey and framing intervention for a randomized online behavioral economics experiment.
- Implemented data collection and pre-tested task timing and incentives on Qualtrics to ensure validity and consistency.
- Performed data cleaning and statistical analysis in R to evaluate treatment effects on task choice, switching behavior, and performance.

Imbalanced Credit Fraud Detection *Hybrid*
Research Assistant at School of Management, Northeastern University China, to Professor Gang Li *January 2024 - February 2025*

- Project: A cost-sensitive ensemble deep forest approach for extremely imbalanced credit fraud detection
- Conducted an in-depth literature review on credit risk evaluation, feature selection, and deep forest methodologies; Established a theoretical framework for a cost-sensitive ensemble deep forest model that address imbalanced credit fraud detection.
- Designed and implemented the model based on European and private transaction datasets, achieving an accuracy of 83.5%, which outperforms traditional methods such as decision trees and random forests.

Personal Consumption Credit Decision-makers Law Studies *Hybrid*
Research Assistant at School of Management, Northeastern University China, to Professor Gang Li *June 2023 - December 2023*

- Project: Consider the "risk-return-line-interest rate" dynamic matching of personal consumption credit decision-makers Law Studies

- Contributed to a cost-sensitive ensemble deep forest model by designing a strategy to assign higher costs to fraud samples and optimizing parameters using Type II error, significantly enhancing detection on imbalanced credit datasets.
- Conducted algorithm tuning, and performance evaluation, helped improve accuracy of the model in the project.

Shanxi Tourism Big Data Joint Laboratory *Taiyuan, China*
Research Assistant *May 2022 - May 2023*

- Developed a 3D travel app showcasing Shanxi Province's tourist attractions and supported data analysis on the economic, consumer, and service aspects of tourism.
- Conducted field experiments to Zuoquan County in Shanxi—interviewing residents, government officials, and scholars on local history, natural, and revolutionary resources—and analyzed pain points for the development and promotions of travel product

Industry Experience

Investment Banking Internship *Shanghai, China*
Haitong Securities *May 2024 - August 2024*

- Supported client valuations and executed buyer searches by analyzing industry data and leveraging market comparisons, successfully matching over 10 corporate clients with suitable buyers.
- Developed a comprehensive industry research report on the photovoltaic sector, detailing government policies, supply chain dynamics, market trends, key drivers, major industry players, and investment opportunities.

Publications

Application of Data Mining Algorithm in Tourism Economy Development Under the Normalization of Epidemic
Frontier Computing on Industrial Applications Volume 1

- Data mining algorithms have enhanced tourism economic analysis, yet issues like inaccurate forecasting persist due to random influences in the data. In this paper, we constructed a model that leverages web scraping to classify data by development stages, mitigating these random effects. Based on the experiments, this approach is 49% faster than traditional analysis methods and improves forecasting accuracy by 29%.

10.1007/978-981-99-9299-7$_4$1

Skills

Languages: English(Proficient), Mandarin(Native)
Research Methods: Computational Text Analysis, Statistical analysis, Survey Design, Social Network Analysis, Qualitative Coding, Archival Research

Technical Proficiencies:: R, Python, C++, LaTeX, MATLAB, SQL, Qualtrics, Stata, Office

References

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