

Xintong (Jessica) Cai

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EDUCATION

- University of California, Los Angeles, Master of Science in Applied Statistics and Data Science** Sep.2024-Jun.2026
- GPA: 3.95/4.0
 - Relevant Courses: Mathematics Probability, Statistical Computing and Programming, Data Management
- University of Chicago, Master of Art in Social Science (Quantitative Methods and Social Analysis)** Sep.2023-Jun.2024
- GPA: 3.85/4.0
- Fudan University, Bachelor of Art in Economics and Communications** Sep.2019-Jun.2023
- GPA: 3.56/4.0, Ranking: 6/30
- University of Helsinki, Exchange Study (Faculty of Social Science)** Jan.2022-Jun.2022
- GPA: 4.8/5.0

SKILLS

Programming: Python (Numpy, Pandas, Pytorch, Scikit-learn), R (Proficient), SQL(Proficient)

Language: Mandarin(Native); English(Fluent, TOEFL:110); Wu(Fluent); Japanese (Basic, N2); German (Basic);

Tools: Latex, Markdown

PROJECT EXPERIENCES

- Predicting ADHD Risk through Brain Scanning Images Data (2025 Women in Data Science)** Jan.2025 – Present
- Conducted EDA on the dataset of the functional MRI by clustering and visualization
 - Used machine learning methods like boosting and random forest to analyze multilevel categorical data
 - Implemented graph models like GNN by PyTorch to train functional MRI data classification and optimize further with SVM
 - Ranked 23rd worldwide up to Feb.23rd 2025
- Predicting the CTR (Click-Through-Rate) of advertisement recommendation system** Jan.2025 -April.2025
- Instructed by Professor Cheng Guang, UCLA AI Trustworthy Lab*
- Applied logistic regression and neural networks to explore and model user behavior from the dataset
 - Called API and used LLM to generate synthetic data to solve the imbalance of data and tested fidelity
 - Used cat-boosting and random forest to predict the CTR, reaching 0.89 Accuracy
- Fading Digital Empathy: The narrative transformation of Online Support groups across Covid-19** Jan.2024 – Aug.2024
- Instructed by James Evans, University of Chicago*
- Extracted and analyzed 76,000 posts from Reddit using Python, conducted time series analysis on social support patterns
 - Utilized large language models for sentiment analysis to assess shifts in online community support, discovering a 24% decline in social support intensity within mental health communities post-Covid-19
 - Paper published in PloS One 2024
- Of Sugar and of Bullet: Tracing the economic consequences of 1740 Batavia(Jakarta) Massacre** Sep.2023 – May.2024
- Instructed by Panos Toulis, University of Chicago*
- Applied Difference-in-Differences (DID) regression method to evaluate the economic consequences of the ethnic massacre
 - Conducted time series analysis using commodity price data from the VOC archive to trace the long-term economic effects

PROFESSIONAL EXPERIENCES

- Knowledge Lab, University of Chicago | Remote, United States** Jun.2024 – Dec.2024
- Data Analyst, Knowledge Lab*
- Summarized over 100 research about the driving force of the disruptive technology diffusion and wrote an analysis
 - Extracted and sorted the dissertation and publication data of scientists since 2012 from Openalex
 - Conducted fuzzy-match on a dataset regarding Ph.D dissertation with over 20,000 lines of data
- Siemens Smart Infrastructure Group China | Shanghai, China** Sep.2022-Nov.2022
- Strategy Analyst*
- Monitored Chinese macroeconomic trends by analyzing National Bureau of Statistics (NBS) data, with a focus on real estate, industry, and transportation sectors
 - Authored a strategic report on the future of new energy development in China, drawing insights from energy policy analysis based on World Bank and IMF reports, providing an outlook for the next fiscal year
 - Prepared competitive analysis presentations, comparing Siemens with competitors such as Schneider and ABB
- Caixin Data Technology Co.Ltd. | Worked remotely** Jun.2022-Nov.2022
- Policy Analyst*
- Contributed to a public health policy project in collaboration with the Bill & Melinda Gates Foundation, analyzing and visualizing themes from over 2,000 media reports
 - Collaborated on a study with Kuaishou, examining the impact of Zero-Covid policy on SME owners, and authored a 25,000-word case study on key influencers
 - Provided daily news analysis, including analysis of the 20th CPC National Congress and Politburo Standing Committee