Yiyuan (Cici) Miao

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EDUCATION

Tsinghua University, Beijing, China | Cornell University (Exchange), New York State, Unites States *Sept.2021 – June 2025(Expected)*

English (Major); Economics and Finance (Minor), GPA: **3.98**/4.00 (Major, Rank **1**/35); 3.97/4.00 (General, Rank **2**/35)

- Relevant Coursework (Tsinghua): Linear Algebra, Calculus, Probability and Statistics, Principles of Economics, Corporate Finance, Investment, Computer Language and Programming (C), Business Data Analysis, Introduction to Data Science (in progress)
- Relevant Coursework (Cornell): Applied Econometrics, Intermediate Microeconomic Theory, Mathematical Modeling, Introduction to Ordinary Differential Equations, Short Course in Python
- Awards: 2024 First prize of university scholarship - Integrated Excellence Scholarship (Top 5%); 2022 First prize of university scholarship - Integrated Excellence Scholarship (Top 5%); 2022 FLTRP English Debate Open (Northern China Universities Championship) Best Speaker (Top 10%); Top 10 Campus Original Musicians of the Year, 2022
- Extracurricular Activities: Section Leader, Tsinghua University Student Choir; Monitor & Art Committee of Class English 11
- Online Coursework: UCLA: Machine Learning (Python); UCB: Introduction to SQL, Multivariable Calculus

PROFESSIONAL EXPERIENCE

DiDi | Department of Data Platform and Application | Data Analysis Intern Beijing, China | *July 2024 – Nov 2024*

- **Modify Codes:** Responsible for modifying codes through analyzing the structure of 1700+ lines of Python code on PSM (Propensity Score Matching) Model. Streamlined the original code by eliminating redundant portions. Created an updated version of the code.
- **Technical Supports:** Utilized knowledge of statistics and coding to provide business analysts with information through examining observational study models such as PSM, Causal Impact and DID. Solved Data Analysis Workbench reported errors and suggested methods to improve experiments to colleagues on other business lines, helping to make better business strategy decisions.
- **Amelioration in Ramp-up Experiments:** Conducted a ramp-up simulation experiment using Python to investigate how an extended experiment could reduce the impact of long-term exposure on short-term treatment effect evaluation through specific data screening methods, such as directly eliminating the data of the ramp-up period or limiting the exposure time of individuals.
- **Causal Inference Seminars:** Conducted group seminars on Observational Studies from the book *Causal Inference: What If*.
- **Supports to International Colleagues:** Translated 10+ passages regarding scientific evaluation methods into English and posted them on the company's shared platform. Recorded an English version of observational evaluation online courses to help international colleagues in South America better understand the principles and applications of strategy evaluation experiments.

Deloitte | Tax and Business Advisory | Tax Audit Intern Beijing, China | *Jan. 2024 – Mar. 2024*

- **Auditing:** Performed spot checks on 20+ boxes of accounting vouchers and sorted out 30+ items in need of tax adjustments for reimbursements. Utilized Excel formulas to audit tax-related items of the client company in accordance with financial statements.
- **Compliance Check:** Verified draft submissions of the client's technology projects through checking for consistency and completeness in project reports. Assessed whether personnel listings and work-hour allocations were reasonable.
- **Consulting:** Gathered legal statutes and consulted the National Tax Bureau's hotline to prepare responses to clients' tax consultation.

Huatai United Securities Co., LTD | Bond-undertaking Assistant Shanghai, China | *July 2023 – Sept. 2023*

- **Calculation:** Calculated and examined over 10 kinds of financial indicators for a bond issuer over a 4-year time span through excel.
- **Miscellaneous:** Collected financial reports and bond issuance prospectuses of industry issuers through Wind to complete a due diligence paper. Evaluated key market events, such as new financing policies and Ministry of Finance bond issuance statistics.

RESEARCH EXPERIENCE

Undergraduate Academic Advancement Program, Tsinghua University (*in progress*) Beijing, China | *Mar. 2024 – Dec. 2024*

A Binomial Tree-Based Empirical Study on the Biases of American Call Option | Individual Project

- Applied Python to construct Binomial Tree Model and priced 10 American call options, half of which came from the technology sector and the other half industrial sector, with a total of about 700 lines of data. Then applied STATA to regress parameters to pricing biases and conducted F-test on two models, one without and one with a dummy variable indicating the sectors.
- Received a level B (the middle level) student grant from the university. Project has been provisionally accepted by the 2024 3rd International Conference on Financial Technology and Market Management (FTMM 2024).

Business Data Analysis Project Beijing, China | *June 2024*

Analysis of Second-hand Housing Transaction Data of Shanghai in Recent Ten Years (2014~2023) | Individual Project

- Conducted a Python-based analysis on the second-hand housing transaction data of Shanghai in the past 10 years (2014-2023), managing a dataset that contained over 100 thousand pieces of data.
- Completed data processing (stripping outliers, creating new columns, etc.), and visualization of time series through Python.
- Explored the correlations between the various characteristics of houses or communities (such as the region, age, size, green rate, floor area ratio, etc.) and the second-hand transaction price. Analyzed the impact these characteristics had on housing prices.

Mathematical Modeling, Cornell Mathematical Contest in Modeling (CMCM) Ithaca, NY, United States | *Nov. 2023*

Models of Population Dynamics of SLF and Management Optimization with a Focus on New York State | Group Project; Team Leader

- Utilized the Monte Carlo Method to simulate the temporal and regional distribution of spotted lanternflies, based on prediction of birth, death, and migration of the pests, considering factors such as traffic development degrees and densities of certain trees, etc.
- Proposed viable management policies by Genetic Algorithm, which determined the best policy through iterations. Repeated the operations of those codes 30 times and then applied multi-variable optimization with weights to assess and select the best policy from those 30 results. Drafted a final proposal that included which area to manage and which management method to apply.

LANGUAGES & SKILLS

- **Languages**: Chinese (native), English (fluent: TEM-4 Excellence; TOEFL 108; GRE 330), Japanese (elementary)
- **Computer Skills**: Python, MATLAB, R, Stata, SPSS, SQL, Latex, Microsoft Office
- **Accounting Skills**: ACCA BT (Score: 81), FA (Score: 86), MA (Score:74). Familiar with basic accounting techniques.