

EDUCATION

University of Wisconsin - Madison | 3.8/4.0 GPA

Sep 2023 - May 2026

- B.S. **Mathematics** (*Honor*), **Economics** (*Math Emphasis*), and **Data Science** | Minors: **Computer Science**, **Business**
- **Courses:** Data Science Programming (Python & R), Mathematical Modelling (Matlab), Stochastic Process, Numerical Analysis, PDE Analysis, Real Analysis, Macroeconomics, International Trade, Growth Economics, Accounting
- UW-Madison Scholarship (\$15k in total): 2023Fall, 2024Spring, 2024Summer

The Hong Kong University of Science and Technology

Sep 2021 - Jun 2023

- BSc. Mathematics and Economics | Minor in IT | Transferred to UW - Madison
- HKUST Admission Scholarship (Full-Tuition)

RESEARCH EXPERIENCE

Neural Network Parameterization for PDE-Constrained Optimization

Sep 2025 - Dec 2025

Madison Experimental Mathematics(MXM) Lab | Advisor: Prof. Yukun Yue

Department of Mathematics, UW-Madison | [Intro Slides](#)

- Developed a Deep Learning framework (PyTorch) to solve inverse problems for the Heat Equation, utilizing neural networks to parameterize unknown source terms and regularize the optimization landscape.
- Engineered an automatic differentiation pipeline combined with the Adjoint Method to compute gradients, achieving a relative L_2 error of $<1.00\%$ in recovering the true force function after 3000 epochs.
- Conducted comparative analysis between Vanilla MLPs and Chebyshev-basis networks, optimizing convergence speed and solution accuracy for complex spatiotemporal dynamics.

The Effect of the Hong Kong Political Change during 2019 on Trade

Sep 2024 - Dec 2024

Thesis | Advisor: Prof. Lydia Cox

Department of Economics, UW-Madison | [Intro Slides](#) | [View Here](#)

- Quantified the impact of the 2019 political protests on Hong Kong's trade performance relative to Singapore using a Difference-in-Differences (DID) approach on bilateral trade flows (2005–2023).
- Constructed a comprehensive dataset by merging annual and monthly trade data, performing rigorous cleaning and robustness checks (placebo tests) to address potential multicollinearity.
- Identified a counter-intuitive positive differential effect post-2019 and performed heterogeneity analysis to attribute this anomaly to increased import substitution from Mainland China.

Impact of Municipal Bond on Local Economic Growth

Jan 2024 - May 2024

Honor Thesis | Advisor: Prof. Simeon Alder

Department of Economics, UW-Madison | [View Here](#)

- Analyzed the fiscal multiplier effect of bond issuance by compiling a longitudinal panel dataset covering 298 Chinese cities over an 18-year period (2005–2022).
- Formulated Fixed-Effects regression models to control for unobserved time-invariant heterogeneity and regional disparities between coastal and inland provinces.
- Uncovered significant diminishing marginal returns of bond issuance on local GDP, providing empirical evidence for the necessity of debt-structure optimization in local government financing.

Measure Theory – Directed Reading Program

Sep 2023 - Dec 2023

Undergraduate Participant

Department of Mathematics, UW-Madison

- Engaged in a rigorous proof-based study of Real Analysis, mastering concepts beyond the standard curriculum including Lebesgue integration, σ -algebras, and properties of L^p spaces.
- Analyzed critical convergence results (Monotone and Dominated Convergence Theorems) to rigorously distinguish the theoretical advantages of Lebesgue measure over Riemann integration in limit processes.
- Synthesized complex theoretical proofs into a final expository presentation, demonstrating the ability to deconstruct and communicate abstract mathematical concepts to professional audience.

WORK EXPERIENCE

Plug and Play, China

Sep 2025 - Nov 2025

Intern, Investment Analyst

Shanghai (hybrid), China

- Conducted industry and market research on embodied AI, robotics, and applied AI; synthesized findings into concise briefs for investment associate.
- Supported accelerator operations end-to-end—source and screen startups, run initial diligence, maintained pipeline CRM, and coordinate mentor matching and PoC pilots with enterprise partners.

Guosheng Securities Co., Ltd.

Jul 2025 - Sep 2025

Intern, Quantitative Research

Shanghai (hybrid), China

- Scripted an automated data filtering process for pharmaceutical funds using Python, streamlining the screening of 3,000+ funds and significantly reducing manual review time.
- Conducted cross-sectional factor attribution on fund performance (market cap, P/E, dividend yield); identified risk-mitigating factors ($\$p < 0.01\$$) to provide quantitative support for the team's allocation strategy.
- Refactored data processing scripts using Parquet I/O and vectorization techniques, solving performance bottlenecks in large-scale backtesting and reducing execution errors.

CITIC Securities Co., Ltd.

May 2025 - Jul 2025

Intern, Quantitative Research

Beijing, China

- Independently architected and implemented a high-throughput news ingestion pipeline, processing 20K–30K market news articles daily; developed an end-to-end NLP workflow leveraging pre-trained language models (e.g., GPT, DeepSeek, Gemini) to automatically extract and summarize stock-level price-movement drivers.
- Built an automated ETF factor mining tool using Microsoft's open-source Qlib core: designed custom factor definitions, fine-tuned and adapted models, orchestrated distributed training, and conducted backtests to validate signal robustness, significantly enhancing factor generation efficiency and strategy performance.
- Utilized Python, Pandas, NumPy, and PyTorch/Tensorflow to write modular, reusable code; implemented data-processing scripts and model training pipelines that reduced development time and improved team productivity.

Shanghai Pudong Development Bank, Hong Kong Branch

Jun 2024 – Aug 2024

Intern, Financial Institutions Department

Hong Kong SAR

- Independently analyzed 5-year operational performance of Chinese bank-affiliated investment banks, covering financial metrics, business strategies, and competitive landscape. Developed data models and trend analysis to support departmental decision-making. The analytical framework and documentation were adopted as templates for future use.
- Prepared 30+ credit assessment reports for diverse clients (investment banks, insurers, financial leasing firms, etc.), evaluating credit risk, financial stability, and debt repayment capacity to optimize loan approval processes.
- Contributed to a syndicated loan project by assisting in due diligence, financial modeling, and contract term reviews, gaining hands-on experience in cross-border collaboration and compliance analysis.

Guosheng Securities Co., Ltd.

Jun 2023 – Aug 2023

Intern, Fixed Income Research

Remote

- Supported analysts in producing periodic interest rate market reports, compiling historical yield curve data (2018–2023) for key treasury maturities and analyzing impacts of monetary policy shifts and macroeconomic events.
- Maintained and updated a fiscal debt database for 300+ prefecture-level cities, tracking 12 core indicators (e.g., debt balances, LGFV bonds). Implemented early-warning mechanisms for financing costs and debt ratios to enhance credit risk assessments.
- Monitored central bank open-market operations and macroeconomic data releases. Synthesized key insights from 30+ fixed-income conference calls (e.g., urban investment bonds, policy briefings) and developed standardized documentation templates.

CAMPUS EXPERIENCE

Chinese Student & Scholar Association (CSSA)

UW-Madison

Vice President of External Relations Department

Dec 2023 – Apr 2024

- Secured sponsorships totaling approximately \$110,000 USD across 9 major student events by establishing partnerships and negotiating contracts with renowned corporations, including U.S. Bank and Chase Bank.
- Managed and trained a 15-member External Relations team, leading professional development in negotiation, sponsorship acquisition, and business communications.

Vice President of Activities Department

Apr 2024 – May 2025

- Managed a department of 45 members, effectively coordinating event planning, operations, and team training.
- Successfully organized major events such as Halloween and Christmas celebrations, attracting over 2,000 attendees and achieving a profit of nearly \$3,000 USD.
- Led the coordination and execution of summer orientation events for incoming students across 5 cities in China, engaging approximately 500 students to facilitate their onboarding and integration into campus life.

Ucircle (Chinese International Student Community)

*Feb 2024 – Present**

Co-founder & Operations Lead

- Co-founded and launched a WeChat mini-program community tailored for Chinese international students and scholars, collaborating with a China-based software development company.
- Managed operations, marketing, and business development initiatives in the U.S., achieving rapid growth to over 5,000 registered users at UW–Madison alone.
- Identified and pursued strategic business opportunities to enhance platform visibility and user engagement.

2025 UW–Madison Chinese New Year Gala

Nov 2024 – Feb 2025

Director & Host

UW-Madison

- Directed a production team of 17 members and supervised 13 performance groups to deliver a highly acclaimed 2.5-hour Spring Festival gala event for the Year of the Snake.
- Achieved record-breaking attendance with over 500 live audience members and approximately 1,000 online viewers, earning exceptional campus-wide recognition.
- Spearheaded scripting, casting, and directing of the gala's promotional short film, and served as the event's primary host.

HKUST MAEC Society

Sep 2022 – Sep 2023

Founding Committee Leader

HKUST

- Initiated and led the establishment of the inaugural MAEC student society, collecting feedback from over 140 students to effectively communicate their academic and administrative needs to the department.
- Organized the society's foundational committee, drafted and ratified the constitution, and facilitated the selection process for the first executive committee.
- Successfully negotiated funding and institutional support through proactive engagement with faculty members and academic departments.
- Prepared comprehensive annual activity plans, including social networking events, career-focused workshops, and academic seminars, as well as managing budgetary forecasts for the upcoming academic year.

HKUST Peer Mentor Program

May 2022 – May 2023

Team Leader & Peer mentor

HKUST

- Coordinated a team of approximately 30 peer mentors, providing continuous, personalized support for nearly 100 first-year students to ensure their successful transition to university life throughout the academic year.
- Planned and executed more than 10 community-building events such as welcome sessions, course-selection workshops, and regular social gatherings, consistently receiving positive feedback.
- Designed and delivered a popular three-part seminar series addressing critical student needs: academic guidance and course selection, practical living tips for university life in Hong Kong, and introductory Cantonese language skills.

SKILLS

Programming	Python, R/RStudio, MATLAB, Stata, Java, MySQL, C/C++
Technical	Excel, Power Point, LaTeX, Bloomberg Terminal, and actively exploring new AI agents & models
Languages	Mandarin (native), English (fluent), Cantonese (basic)
Academic Focus	Macroeconomics, Growth Economics, International Trade, Quant Research, LLM
Interests	Formula-1(trained in karting), Soccer (starter on middle & high school teams), Tennis, Snowboard
Certificates	<i>IBM Cybersecurity Analyst Professional Certificate Bloomberg Market Concept Certificate AWS Certified AI Practitioner AWS Certified Machine Learning Associate</i>