Yuqi Liu

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Education

New York University *Aug 2026 – May*
Master of Science in Computer Science, Courant Institute *2028(Expected)*

China University of Political Science and Law *Aug 2021 – June 2025*
B.Eng in Information Management and Systems

- GPA: 89.32/100
- **Coursework:** Data Mining, Introduction to Artificial Intelligence, Game Theory, Big Data Visualization, Operating Systems, MATLAB and Mathematics Experiment, Big Data Gathering and Preprocessing,Data Structures, Game Theory

University of California, Berkeley *Jan 2024 – Dec 2024*
Visiting Student

- GPA: 3.78/4.0
- **Coursework:** Advanced Topics in Statistical Learning,Applied Machine Learning,Computer Vision,Applied Numerical Linear Algebra(All Graduate Level Courses)

Central South University *Aug 2022 – Jan 2023*
Exchange Student

- GPA: 89.01/100
- **Coursework:** Operations Research, Computer Organization and Assembly Language, Management Information Systems, Computer Networks, Digital Circuits, Discrete Mathematics

Experience

Research Intern *Berkeley, CA(Hybrid)*
International Computer Science Institute, Berkeley *July 2024 – Present*

- Evaluated MAMBA-based LLM on their in-context learning abilities over benchmarks
- Designed jailbreaking attacks against Judge LLMs and improved their robustness against Hallucination with calibration and RL techniques.
- Investigated the application of randomized algorithms in compressing techniques in machine learning tasks.

Research Intern *Beijing, China(Hybrid)*
China University of Political Science and Law *Oct 2023 – Nov 2024*

- Designed a learning-to-rank algorithm to combine Rank-SVM with various language models to improve their ranking performance

Research Intern *Beijing, China(Hybrid)*
Peking University *May 2024 – Aug 2024*

- Learned about optimization techniques in machine learning and mathematical formula of RL routes.

Internship *Beijing, China(Hybrid)*
China University of Political Science and Law *Jan 2022 – August 2022*

- Helped with translating the book Data-Driven Law: Data Analytics and the New Legal Services to Chinese with knowledge in Data Science and Machine Learning under the guidance of lecturer Wei Zhou. The book is already published by Intellectual Property Publishing House, China.
- Assisted with drawing swim lane diagrams, use case diagrams, and conducting demand analysis of the online arbitration and mediation system of the International Arbitration Cloud Chain Association(Beijing).

Publications

A Moderate Survey of Sketching Techniques Comparison For Randomized Numerical Linear Algebra Under Machine Learning Setting Jan 2025

Yuqi Liu, Leon Mikulinsky, Konstantin Zörner, James Demmel

Accepted by SCML.

Improving Similar Case Retrieval Ranking Performance with SVM-rank Dec 2024

Yuqi Liu, Yan Zheng

https://arxiv.org/abs/2502.11131

Emoji Attack: A Method for Misleading Judge LLMs in Safety Risk Detection Nov 2024

Zhipeng Wei, ***Yuqi Liu***, N. Benjamin Erichson

https://arxiv.org/pdf/2411.01077 accepted by ICML 2025

Robust Guardreasoner: LLM Judges with Reasoning Ability Robust to Token Segmentation Bias Working Draft

Yuqi Liu, Zhipeng Wei, N. Benjamin Erichson

Technologies

Languages: Python, MATLAB, C, Java, SQL, R, JavaScript, Julia
Skills: Machine Learning, Deep Learning, Natural Language Processing, Vision Models, Reinforcement Learning, LLMs, Parallel Algorithms
Soft Skills: Teamwork, Innovation, Mentoring

Competitions and Awards

Violet Internship&Research Award, 2026
Distinguished Graduate, 2025
Awarded "Double Distinguished" Scholarship Supporting Exchange Programs Abroad, 2024
Awarded Third Award in Chinese Mathematics Competition (CMC), 2023
Merit Student, 2023
Awarded Second Award in China University Mathematical Contest in Modeling (Beijing) (CUMCM), 2023
Awarded Best Presentation Group for the Online Youth Programme: Artificial Intelligence, IoT, Data and Public Policy by National University of Singapore, 2023
Awarded Outstanding Award (1st Award) of "Huashu Cup" International Mathematical Contest in Modeling, 2023
First Class Scholarship of Academy (To students who get the best grades in their school) Scholarship Recipient, 2022

Teaching Activities

TA for Business Analysis for Innovation and Policy (China University of Political Science and Law)
TA for Introduction to Information Management (China University of political science and Law)
TA for Management of Information Resource (China University of political science and Law)

Online Coursework and Certificate

Machine Learning Specialization & Deep Learning Specialization by Andrew Ng on Coursera, 2023
Algorithms Specialization by Tim Roughgarden on Coursera, 2025

Other Activities

Elected captain of the debate team of the School of Information Management of Law, China University of Political Science and Law, 2022