Yuqi Liu

⌖ Beijing, China   ✉ yuqi5341@gmail.com   ☏ +1 4157252619   ⦿ liuyuqi123study

Education

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

- GPA: 90.33/100
- **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)*
UC Berkeley, ICSI *July 2024 – Present*

- Evaluated MAMBA-based LLM on their in-context learning abilities
- Designed jailbreaking attacks against Judge LLMs.
- AI for science

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

- Designed an 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*

- Interned in topics of statistical learning and RLHF.

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 ⧉ in submission

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 ↗ in submission

Projects

Derma-MNIST Classification Task   *github.com/liuyuqi123*
                                                                        study/DermaMNIST ↗

○ We finished the Derma-MNIST classification task, reaching 77% accuracy with hand-engineered features and ResNet features, which were better than the benchmark.

○ Tools Used: Python

Tradeoffs among Sketching Matrices used in Randomized Linear Algebra

                                                                    github.com/KonstantinZoerner
                                                                     /Math221-Project ↗

○ We use real-world datasets to test the accuracy and efficiency of different sketching matrices in applications like low-rank approximation and least squares.

○ Tools Used: MATLAB,Python

Technologies

Languages: Python, MATLAB, C, Java, SQL, R, JavaScript

Competitions and Awards

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

Other Activities

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