Jiaming Zhang

(+86)15588801376 | zhangjiaming2002@ruc.edu.cn | GitHub Beijing, China

Education

Renmin University of China — Beijing, China
B.Sc. in Statistics; ***GPA:*** *3.79/4.00;* ***Rank:*** *Top 15% in 159* — *Sep 2021 – Jun 2025*
Minor Degree in Finance; — *Oct 2022 – Jun 2025*

Coursework: Mathematical Analysis, Advanced Algebra, Probability Theory, Mathematical Statistics, Real Analysis, Regression Analysis, Stochastic Processes, C&C++ Programming, Data Structures, Database Systems.
Honors and Awards: Second Prize Scholarship(2023-2024), Third Prize Scholarship(2021-2022), Merit Student (2023 - 2024), Second Prize (Beijing region) in China Undergraduate Mathematical Contest in Modeling(2021), National-Level Approval for College Student Entrepreneurship Training, Excellent Award in JD Cup Finals

Publications

Towards User-level Private Reinforcement Learning with Human Feedback | *Submitted to ACL2025*

- Developed AUP-RLHF, a novel framework integrating user-level label differential privacy (DP) into Reinforcement Learning with Human Feedback (RLHF) to protect user preference privacy. Demonstrated that traditional Random Response algorithms perform suboptimally in user-level settings. Proposed a lower bound for user-level DP-RLHF and designed the AUP-RLHF algorithm, achieving (ε,δ)-user-level privacy with improved estimation error.

Large Language Model for Table Processing: A Survey | *In revision*

- Conducted a comprehensive survey on using Large Language Models (LLMs) for table-centric tasks, covering table QA, fact verification, manipulation, and advanced data analysis. Explored recent advancements in instruction-tuning and prompting techniques. Highlighted challenges in private deployment, efficient inference, and benchmark development for complex table tasks.

A Case-Based Reasoning Framework for Multi-Hazard Assessment of Earthquake Impacts | *ICCBR2024*

- Developed an enhanced causal graph Bayesian network integrated with a case-based reasoning framework for multi-hazard impact assessment. This method shows robust adaptability to noisy data and significantly improves accuracy compared to prior models (e.g., USGS). Applied to analyze major earthquakes in Turkey (2023) and Japan (2024), it offers a high-precision, scalable, and unsupervised learning approach for earthquake damage estimation.

Working Experience and Teaching

Provable Responsible AI and Data Analytics (PRADA) Lab — Beijing, China
Remote Intern at KAUST, Advisor: Prof. Di Wang — *Jun 2024 – Present*

- Applied Differential Privacy (DP) techniques to enhance data privacy in machine learning models.
- Investigated the development of trustworthy Large Language Models (LLMs) with a focus on adversarial robustness theory and adversarial training methods.

Intelligent Game and Decision Laboratory — Beijing, China
Intern, Advisor: Prof. Xiaohu Zheng — *Oct 2024 – Jun 2025*

- Developed and implemented anomaly detection algorithms for spacecraft telemetry data using advanced generative models (LSTM-VAE, Transformer) and kernel density estimation. Focused on improving fault diagnosis and system reliability through early detection of anomalies in complex spacecraft data.

Renmin University of China — Beijing, China
Teaching Assistant — *Sep 2024 – Dec 2024*

- Served as a Teaching Assistant for Regression Analysis.

Skills

Programing: C/C++, Python(PyTorch, Tensorflow, Scikit-learn, etc.), SQL, MATLAB, R, GitHub, LeTaX
Languages: CET6, CET4