Ye Zheng

Ph.D. candidate in Computer Science, Rochester Institute of Technology (RIT)

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Research Experience

I focus on the design and analysis of foundational algorithms. Over the past five years, my research has spanned AI-driven theorem proving, formal privacy, and formal safety.

Education

Rochester Institute of Technology (Rochester, USA) Sep 2023 – Present

- Ph.D. candidate in Computer Science, advised by Dr. Yidan Hu
- Research Topics: AI for Math, Differential Privacy (Formal Privacy)

Shenzhen University (Shenzhen, China) Sep 2020 – Jun 2023

- M.S. in Software Engineering, advised by Dr. Jiaxiang Liu
- Research Topics: Neural Network Verification (Formal Verification)

Henan University (Kaifeng, China) Sep 2016 – Jun 2020

- B.S. in Mathematics, advised by Dr. Zhonghua Wang
- Major: Pure Mathematics

Publications (1st-author then co-author)

1. **[PETS'25]** Optimal Piecewise-based Mechanism for Collecting Bounded Numerical Data under Local Differential Privacy
   Ye Zheng, Sumita Mishra, and Yidan Hu
2. **[PETS'25]** Locally Differentially Private Frequency Estimation via Joint Randomized Response
   Ye Zheng, Shafizur Rahman Seeam, Yidan Hu, Rui Zhang, and Yanchao Zhang
3. **[FSE'22 Demonstrations]** MpBP: Verifying Robustness of Neural Networks with Multi-path Bound Propagation
   Ye Zheng, Jiaxiang Liu, and Xiaomu Shi
4. **[JOS'22]** (in Chinese) Multi-path Back-propagation Method for Neural Network Verification
   Ye Zheng, Xiaomu Shi, and Jiaxiang Liu
5. **[CNS'24]** Multi-sensor Data Privacy Protection with Adaptive Privacy Budget for IoT Systems
   Xinyi Liu, Ye Zheng, Zhengxiong Li, and Yidan Hu
6. **[SAS'23]** Boosting Multi-neuron Convex Relaxation for Neural Network Verification
   Xuezhou Tang, Ye Zheng, and Jiaxiang Liu

Selected Awards

Outstanding Graduate, Shenzhen University Jun 2023

National Scholarship, Ministry of Education, China Sep 2022

Academic Services

Reviewer: TASE'24, and SAS'24