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 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 Privacy, 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; full list at Google Scholar)

Preprints:

1. AUDAGENT: Automated Auditing of Privacy Policy Compliance in AI Agents 📄
   Ye Zheng and Yidan Hu

2. Quantifying Classifier Utility under Local Differential Privacy 📄
   Ye Zheng and Yidan Hu

3. TraCS: Trajectory Collection in Continuous Space under Local Differential Privacy 📄
   Ye Zheng and Yidan Hu

Conference Publications:

4. **[PETS'25]** Optimal Piecewise-based Mechanism for Collecting Bounded Numerical Data under Local Differential Privacy 📄 | *Artifact Award Runner-up*
   Ye Zheng, Sumita Mishra, and Yidan Hu

5. **[PETS'25]** Locally Differentially Private Frequency Estimation via Joint Randomized Response 📄
   Ye Zheng, Shafizur Rahman Seeam, Yidan Hu, Rui Zhang, and Yanchao Zhang

6. **[FSE'22 Demonstrations]** MpBP: Verifying Robustness of Neural Networks with Multi-path Bound Propagation 📄
   Ye Zheng, Jiaxiang Liu, and Xiaomu Shi

7. **[JOS'22]** (in Chinese) Multi-path Back-propagation Method for Neural Network Verification 📄
   Ye Zheng, Xiaomu Shi, and Jiaxiang Liu

8. **[PETS'26]** Frequency Estimation of Correlated Multi-attribute Data under Local Differential Privacy 🗎
   Shafizur Rahman Seeam, <u>Ye Zheng</u>, and Yidan Hu

9. **[CNS'24]** Multi-sensor Data Privacy Protection with Adaptive Privacy Budget for IoT Systems 🗎
   Xinyi Liu, <u>Ye Zheng</u>, Zhengxiong Li, and Yidan Hu

10. **[SAS'23]** Boosting Multi-neuron Convex Relaxation for Neural Network Verification 🗎
    Xuezhou Tang, <u>Ye Zheng</u>, 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