# YE ZHENG

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

## RESEARCH EXPERIENCE

I focus on the design and analysis of foundational algorithms. Over the past five years, my research has spanned AI-driven knowledge discovery, 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 Science, 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

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

#### PUBLICATIONS (1st-author then co-author)

- [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
- 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