Hanbin Hong

Department of Computer Science and Engineering,
University of Connecticut, Storrs, CT 06269
hanbin.hong@uconn.com
https://youbin2014.github.io

Education

Ph.D. Student, University of Connecticut — Storrs, Connecticut
Department of Computer Science and Engineering — September 2022 – May 2025 (expected)
Area: Computer Science

Ph.D. Student, Illinois Institute of Technology — Chicago, Illinois
Department of Computer Science — January 2021 – May 2022
Area: Computer Science

Research Internship, Rochester Institute of Technology — Rochester, New York
Golisano College of Computing and Information Sciences — September 2019 – December 2020
Area: Computer Vision

Graduate School, Xi'an Jiaotong University — Xi'an, China
School of Economics and Finance — September 2018 – July 2019
Major: Financial Engineering

Xi'an Jiaotong University — Xi'an, China
Qian Xuesen School — September 2014 – July 2018
Major: Honor Science Program (Physics)

Publication

Hanbin Hong, and Yuan Hong. Certifiable Black-Box Attack: Ensuring Provably Successful Attack for Adversarial Examples. arXiv preprint arXiv:2304.04343, 2023

Han Wang, **Hanbin Hong**, Li Xiong, Zhan Qin, and Yuan Hong. PrivLBS: Local Differential Privacy for Location-Based Services with Staircase Randomized Response. Proceedings of the 2022 ACM SIGSAC Conference on Computer and Communications Security (CCS), 2022.

Hanbin Hong, and Yuan Hong. Certified Adversarial Robustness via Anisotropic Randomized Smoothing. arXiv preprint arXiv:2207.05327, 2022.

Hanbin Hong, Binghui Wang, and Yuan Hong. UniCR: Universally Approximated Certified Robustness via Randomized Smoothing. Computer Vision European Conference (ECCV), 2022

Hanbin Hong, Yuan Hong, and Yu Kong. An Eye for an Eye: Defending against Gradient-based Attacks with Gradients. arXiv preprint arXiv:2202.01117, 2022.

Hanbin Hong, Wentao Bao, Yuan Hong, and Yu Kong. Privacy Attributes-aware Message Passing Neural Network for Visual Privacy Attributes Classification. 2020 25th International Conference on Pattern Recognition (ICPR). IEEE, 2021.

Junwen Chen, Haiting Hao, **Hanbin Hong**, and Yu Kong, RIT-18: A Novel Dataset for Compositional Group Activity Understanding, IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2020.

Research Interests

Machien Learning Security, Adversarial Learning, Adversarial Attacks, Adversarial Robustness, Certifiable Robustness, Differential Privacy, and Privacy-preserving Machine Learning.

Services

Program Committee

Association for the Advancement of Artificial Intelligence (AAAI)	2023
Association for the Advancement of Artificial Intelligence (AAAI)	2022

Reviewer

Computer Vision and Pattern Recognition Conference (CVPR)	2023
International World Wide Web Conference (Web)	2023
IEEE Transactions on Dependable and Secure Computing (TDSC)	2023
IEEE Internet of Things Journal (IoTJ)	2023
International Conference on Machine Learning (ICML)	2023
International Conference on Computer Vision (ICCV)	2023
Conference on Neural Information Processing Systems (NeurIPS)	2022
International Conference on Machine Learning (ICML)	2022
European Conference on Computer Vision (ECCV)	2022

External Reviewer

ACM Conference on Computer and Communications Security (CCS)	2023
International Conference on Autonomous Agents and Multiagent Systems (AAMAS)	2023
USENIX Security Symposium (USENIX)	2023
ACM Conference on Computer and Communications Security (CCS)	2022
USENIX Security Symposium (USENIX)	2022
International Symposium on Research in Attacks, Intrusions and Defenses (RAID)	2022
Special Interest Group on Knowledge Discovery and Data Mining (KDD)	2022

Software competencies

Programming
Python, Matlab, C\C++, Java

Software Library
PyTorch, Keras, Tensorflow

Operating Systems
Windows, Linux

Honors and Awards

General Electric Graduate Fellowship for Excellence	2023
Predoctoral Fellowship with Excellent Research Award	2023
Synchrony Financial Cybersecurity Graduate Fellowship	2023

Student Travel Grant for CCS'22	2022
Certificate of Honors Graduate awarded by Qian Xuesen School	2018
2nd Class Zhufeng Scholarship **(Top 10 in 120 students)**	2017
Si Yuan Scholarship awarded by Xi'an Jiaotong University	2016
The 2nd Prize in China Undergraduate Mathematical Contest in Modeling **(Top 5% in 1821 teams)**	2015
The 2nd Prize in Mathematical Contest in Modeling at Xi'an Jiaotong University	2015