Jinyuan Liu

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Education

Shandong University, Bachelor Sep. 2020 - Jun. 2024
School of Cyber Science and Technology *GPA Ranking: 1/70*

- **Main Courses:** Computer Composition and Principles, Basic Mathematics of Public Key Cryptography, Discrete Mathematics, Data Structures and Algorithms, Introduction to Cryptography.
- **Awards:**
  - National Scholarship 2021, 2022
  - The First Prize Scholarship 2021, 2022
  - Merit Student of Shandong University 2021, 2022
  - Special Merit Scholarship for Sports 2021, 2022
  - Special Merit Scholarship for Research and Innovation 2022
  - Special Merit Scholarship for Aesthetic 2021

TsingHua University, Phd Aug. 2024 - Now
Institute for Advanced Study

Skills

Program languages: Python, C/C++, HTML/CSS, LaTeX
Languages: English (CET-4: 579 CET-6: 525)

Papers

Have You Merged My Model? On The Robustness of Large Language Model IP Protection Methods Against Model Merging
T. Cong, D. Ran, Z. Liu, X. He, **J. Liu**, Y. Gong, Q. Li, A. Wang, X. Wang

JailbreakEval: An Integrated Toolkit for Evaluating Jailbreak Attempts Against Large Language Models
D. Ran, **J. Liu**, Y. Gong, J. Zheng, X. He, T. Cong, A. Wang

FigStep: Jailbreaking Large Vision-language Models via Typographic Visual Prompts
Y. Gong, D. Ran, **J. Liu**, C. Wang, T. Cong, A. Wang, S. Duan, X. Wang

Projects

CCF-Huawei Poplar Forest Fund | *Member* Oct. 2022 – Jun. 2023

- Contributed two patents to Huawei with the team, and one paper is under writing
- Solved the insufficient memory reliability of Huawei Kunpeng processors by using static multidimensional variable hazard analysis
- By constructing CFG and TCFG from the assembly code of C programs, I conducted loop analysis, cache analysis and access heat analysis
- Completed the algorithm design for read-write feature analysis

A Lattice-based Multi-keyword Fuzzy Public Key Searchable Encryption | *Leader* Sept. 2022 – Mar. 2023

- Designed a public key searchable encryption scheme based on ring LWE and ring SIS and completed the code implementation of this scheme
- Proposed an accurate method for multi-key fuzzy search
- The four steps of the scheme: Key generation, Trapdoor generation, Searchable ciphertext generation, and Test are millisecond - level performance

Academic Competitions

Mathematics Competition of Chinese College Students | *National first prize* Mar. 2022
http://www.cmathc.cn/

China Collegiate Algorithm Design and Programming Challenge Contest | *Gold medal* Mar. 2022
https://www.saikr.com/adpc/2022winter

National Cryptography Technology Competition | *National third prize* Mar. 2023
Designed a new lattice-based multi-keyword fuzzy public key searchable encryption scheme. Completed the design of the entire PEKS algorithm and conducted security proofs

English Competition of Chinese College Students | *National third prize* May 2021
http://www.chinaneccs.cn/

MCM/ICM | *Honorable Mention* Feb. 2022
Designed an algorithm for calculating carbon sequestration of American forest, so as to make a regression prediction of the carbon sequestration of American forest in the next 50 years