Liangqin Ren

@ liangqinren@ku.edu | GitHub | Lawrence, KS

Education

University of Kansas Aug 2021 – Jul 2026 (Expected)
Ph.D. in Computer Science, advised by Professor Fengjun Li and Bo Luo

University of Chinese Academy of Sciences Aug 2017 – Jul 2020
M.Eng. in Computer Technology

Shandong University of Science and Technology Aug 2013 – Jul 2017
B.Eng. in Network Engineering

Publications

- **Liangqin Ren**, Zeyan Liu, Fengjun Li, Kaitai Liang, Zhu Li, and Bo Luo. PrivDNN: A Secure Multi-Party Computation Framework for Deep Learning using Partial DNN Encryption. In the 24th Privacy Enhancing Technologies Symposium (PETS), Bristol, UK, 2024.
- X. Xu, Q. Cai, J. Lin, S. Pan and **L. Ren**. Enforcing Access Control in Distributed Version Control Systems. 2019 IEEE International Conference on Multimedia and Expo (ICME), Shanghai, China, 2019.
- **Liangqin Ren**, Wei Wang, Qiongxiao Wang, Linli Lu. A New Cloud Cryptographic Computing Platform Architecture and Implementation[J]. Netinfo Security, 2019, 19(9): 91-95.

Services

External Reviewer: International Conference on Knowledge Science, Engineering and Management (KSEM) 2024

Moderator: International Conference on Security and Privacy in Communication Networks (SecureComm) 2022

Project Experience

Secure Multi-Party Computing Framework with Partial Homomorphic Encryption Jan 2022 – Feb 2024
- Implemented four schemes for core neuron selection on five datasets.
- Implemented frameworks protecting models with homomorphic encryption based on core neuron selection.
- Demonstrated protection robustness against malicious clients and servers.

Protect Portrait Privacy against DeepFake Feb 2024 – Present
- Designed the GAN-based protection generator against DeepFake.
- Improved protection generator model with neural architecture search.
- Demonstrated protection robustness against three kinds of DeepFake attacks.

Create and Detect Images Generated by AIGC Oct 2023 – Present
- Implemented scripts to generate AIGC pictures in five fields.

Employment History

University of Kansas, Graduate Teaching Assistant Spring & Fall, 2022 – 2024
- Taught labs, guided projects, and grade for EECS 348 (448) Software Engineering.

University of Kansas, Graduate Research Assistant Summer, 2021 – 2023
- Worked on projects about machine learning security.

Baidu Corporation, Software Development Intern Jan – May, 2021
- Developed Baidu translation software development kits for mobile devices.
- Developed cross-compilation framework between X86 and embedding platforms.

Honors and rewards

CANSec Travel Grant Award 2022

Honors Graduate (Rank 1/48), Shandong University of Science and Technology 2017

Skills

Languages: C/C++, Python

Frameworks: PyTorch