Zhibo Liu
PhD Student

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I am currently a fourth-year Ph.D. student at the Department of Computer Science and Engineering, Hong Kong University of Science and Technology, supervised by Prof. Shuai Wang.

Before joining HKUST, I received my B.Eng. degree from Nankai University, Tianjin, China, in 2019.

My research currently focuses on **Reverse Engineering**, and my research interests include **Computer Security** and **Software Engineering**.

EDUCATION

Ph.D., Hong Kong University of Science and Technology	**09 2019 — now**
Bachelor of Engineering in information security, Nankai University	**09 2015 — 06 2019**

PUBLICATIONS

1. Yuan, Y., Liu, Z. & Wang, S. *CacheQL: Quantifying and Localizing Cache Side-Channel Vulnerabilities in Production Software* in *USENIX Security (Accepted)* (2023).

2. Liu, Z., Yuan, Y., Wang, S., Xie, X. & Ma, L. *Decompiling x86 Deep Neural Network Executables* in *USENIX Security (Accepted)* (2023).

3. Jiang, K., Bao, Y., Wang, S., Liu, Z. & Zhang, T. *Cache Refinement Type for Side-Channel Detection of Cryptographic Software* in *Proceedings of the 2022 ACM SIGSAC Conference on Computer and Communications Security* (2022), 1583–1597.

4. Liu, Z., Yuan, Y., Wang, S. & Bao, Y. *SoK: Demystifying Binary Lifters Through the Lens of Downstream Applications* in *2022 IEEE Symposium on Security and Privacy (SP)(SP). IEEE Computer Society, Los Alamitos, CA, USA* (2022), 453–472.

5. Xiao, D., LIU, Z., Yuan, Y., Pang, Q. & Wang, S. Metamorphic Testing of Deep Learning Compilers. *Proceedings of the ACM on Measurement and Analysis of Computing Systems* **6,** 1–28 (2022).

6. Ma, P., Liu, Z., Yuan, Y. & Wang, S. NeuralD: Detecting Indistinguishability Violations of Oblivious RAM with Neural Distinguishers. *IEEE Transactions on Information Forensics and Security* (2022).

7. Wang, H. *et al.* Enhancing DNN-Based Binary Code Function Search With Low-Cost Equivalence Checking. *IEEE Transactions on Software Engineering* (2022).

8. Liu, Z. & Wang, S. *How Far We Have Come: Testing Decompilation Correctness of C Decompilers* in *Proceedings of the 29th ACM SIGSOFT International Symposium on Software Testing and Analysis* (Association for Computing Machinery, Virtual Event, USA, 2020), 475–487. ISBN: 9781450380089. https://doi.org/10.1145/3395363.3397370.

AWARDS & HONORS

2022	HKUST Research Travel Grant
2022	HKUST RedBird Academic Excellence Award (20,000 HKD)
2019	China National Cyber Security Scholarship (30,000 CNY)
2019	Chain National College Information Security Contest (CISCN CTF Contest), group second class prize
2018	CISCN CTF Contest, group second class prize
2017	ACM/ICPC Asia Regional Urumqi Site Bronze Medal

PROFESSIONAL SERVICE

AE Committee	2023	USENIX Security
	2022	OSDI, USENIX ATC, ISSTA, WiSec
External Reviewer	2023	USENIX Security, IEEE S&P, ISSTA, NeurIPS, SANER ERA Track
	2022	ASE, NDSS BAR, CCS, AsiaCCS
	2020	TIFS, ICICS, ICSE SEIP
	2019	ICICS
External AE Reviewer	2020	ICSE
	2019	SOSP

TECHNICAL SKILLS

Other Skills	Reverse Engineering, Vulnerability Exploitation
Programming/Scripting	Python, Java, C/C++, Assembly