

Jun ZENG

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Homepage: <https://jun-zeng.github.io>

EDUCATION

National University of Singapore (NUS), Singapore

August 2018-June 2023

Program: PH.D. in Computer Science

Advisor: Zhenkai Liang GPA: 4.9/5.0

Huazhong University of Science and Technology (HUST), China

September 2014-June 2018

Program: Bachelor of Engineering in Computer Science and Technology

Advisor: Deqing Zou GPA: 91/100

WORK EXPERIENCE

Huawei (Top Minds Program), Hangzhou, China

July 2023- September 2024

Department: Weiran Lab

Project: Graph Computing/AI for Security

Apple (Intern), Shanghai, China

March 2018-July 2018

Department: Hardware Test Engineering

Project: Xaiver Algorithm Design

PUBLICATIONS

[14] **ProvGuard: Detecting SDN Control Policy Manipulation via Contextual Semantics of Provenance Graphs.**

Ziwen Liu, Jian Mao, **Jun Zeng**, Jiawei Li, Qixiao Lin, Jiahao Liu, Jianwei Zhuge, Zhenkai Liang

In Proceedings of the 32nd Annual Network and Distributed System Security Symposium (NDSS), 2025

[13] **UI-CTX: Understanding UI Behaviors with Code Contexts for Mobile Applications.**

Jiawei Li*, Jiahao Liu*, Jian Mao, **Jun Zeng**, Zhenkai Liang (* co-primary authors)

In Proceedings of the 32nd Annual Network and Distributed System Security Symposium (NDSS), 2025

[12] **The HitchHiker's Guide to High-Assurance System Observability Protection with Efficient Permission Switches.**

Chuqi Zhang, **Jun Zeng**, Yiming Zhang, Adil Ahmad, Fengwei Zhang, Zhenkai Liang, Hai Jin

In Proceedings of the 31st ACM Conference on Computer and Communications Security (CCS), 2024

[11] **MaskDroid: Robust Android Malware Detection with Masked Graph Representations.**

Jingnan Zheng*, Jiahao Liu*, An Zhang, **Jun Zeng**, Ziqi Yang, Zhenkai Liang, Tat-Seng Chua (* co-primary authors)

In Proceedings of the 39th IEEE/ACM International Conference on Automated Software Engineering (ASE), 2024

[10] **UIHASH: Detecting Similar Android UIs through Grid-Based Visual Appearance Representation.**

Jiawei Li, Jian Mao, **Jun Zeng**, Qixiao Lin, Shaowen Feng, Zhenkai Liang

In Proceedings of the 33rd USENIX Security Symposium (USENIX Security), 2024

[9] **Automatic Root Cause Analysis via Large Language Models for Cloud Incidents.**

Yinfang Chen, Huaibing Xie, Minghua Ma, Yu Kang, Xin Gao, Liu Shi, Yunjie Cao, Xuedong Gao, Hao Fan, Ming Wen, **Jun Zeng**, Supriyo Ghosh, Xuchao Zhang, Qingwei Lin, Saravan Rajmohan, Dongmei Zhang, Tianyin Xu

In Proceedings of the 19th European Conference on Computer Systems (EuroSys), 2024

- [8] **Learning Graph-based Code Representations for Source-level Functional Similarity Detection.**
Jiahao Liu*, Jun Zeng*, Xiang Wang, Zhenkai Liang. (* co-primary authors)
In Proceedings of the 45th International Conference on Software Engineering (ICSE), 2023
- [7] **PALANTIR: Optimizing Attack Provenance with Hardware-enhanced System Observability.**
Jun Zeng*, Chuqi Zhang*, Zhenkai Liang. (* co-primary authors)
In Proceedings of the 29th ACM Conference on Computer and Communications Security (CCS), 2022
- [6] **FLOWMATRIX: GPU-Assisted Information-Flow Analysis through Matrix-based Representation.**
Kaihang Ji, Jun Zeng, Yuancheng Jiang, Zhenkai Liang, Zheng Leong Chua, Prateek Saxena, and Abhik Roychoudhury.
In Proceedings of the 31st USENIX Security Symposium (USENIX Security), 2022
- [5] **SHADEWATCHER: Recommendation-guided Cyber Threat Analysis using System Audit Records.**
Jun Zeng, Xiang Wang, Jiahao Liu, Yinfang Chen, Zhenkai Liang, Tat-Seng Chua, and Zheng Leong Chua.
In Proceedings of the 43rd IEEE Symposium on Security and Privacy (Oakland), 2022
- [4] **ATTACKG: Constructing Technique Knowledge Graph from Cyber Threat Intelligence Reports.**
Zhenyuan Li, Jun Zeng, Yan Chen, Zhenkai Liang.
In Proceedings of the 27th European Symposium on Research in Computer Security (ESORICS), 2022
- [3] **TELL: Log Level Suggestions via Modeling Multi-level Code Block Information.**
Jiahao Liu, Jun Zeng, Xiang Wang, Kaihang Ji, and Zhenkai Liang.
In Proceedings of the 31st ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA), 2022
- [2] **WATSON: Abstracting Behaviors from Audit logs via Aggregation of Contextual Semantics.**
Jun Zeng, Zheng Leong Chua, Yinfang Chen, Kaihang Ji, Zhenkai Liang, and Jian Mao.
In Proceedings of the 28th Annual Network and Distributed System Security Symposium (NDSS), 2021
- [1] **Enhancing SSD Performance with LDPC-aware Garbage Collection.**
Yajuan Du, Yunpei Jia, Meng Zhang, Jun Zeng, Chun Jason Xue.
In Proceedings of the 6th Non-Volatile Memory Systems and Applications Symposium (NVMSA), 2017

HONORS & AWARDS

Outstanding Student awarded by HUST (1/100)	2016
National Scholarship	2017
Pacemaker to Merit Student awarded by HUST (20/35000)	2017
Research Scholarship by NUS	2018
Dean's Graduate Research Excellence Award	2023
Student Travel Grant for S&P 2020/2021/2022, USENIX Security 2020, NDSS 2021	

TEACHING ASSISTANT

Web Security (CS5331)	NUS, School of Computing	August 2018-December 2018
Introduction to Information Security (CS2107)	NUS, School of Computing	January 2019-May 2019
Introduction to Information Security (CS2107)	NUS, School of Computing	August 2019-December 2019
Web Security (CS5331)	NUS, School of Computing	January 2020-May 2020
Introduction to Information Security (CS2107)	NUS, School of Computing	August 2020-December 2020
Web Security (CS5331)	NUS, School of Computing	January 2021-May 2021

INVITED TALKS

Investigating Security Incidents with System Auditing and Analysis		
	Huawei, Munich, Germany (Virtually)	March 2023
	Zhejiang University, Zhejiang, China	February 2023

ATTACKG: Constructing Technique Knowledge Graph from Cyber Threat Intelligence Reports

Copenhagen, Denmark

September 2022

SHADEWATCHER: Recommendation-guided Cyber Threat Analysis using System Audit Records

San Francisco, CA

May 2022

WATSON: Abstracting Behaviors from Audit logs via Aggregation of Contextual Semantics

Virtually

February 2021