

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

ByteDance, Hangzhou, China

Present

Department: Security-Flow

Project: LLM for Vulnerability Detection and Repair

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

Practice of Security Agents in SoC

Volcano Engine Force, Shanghai, China

December 2024

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