Yizhuo Zhai

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Computer Science and Engineering

University of California, Riverside

[Google Scholar DBLP]

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RESEARCH OBJECTIVE

System Security	• Linux Kernel Security
Program Analysis	• Static Analysis, Symbolic Execution

EDUCATION

09/2016 – present	**Ph.D.** in Computer Science, University of California, Riverside, USA Advisor: Zhiyun Qian & Srikanth V. Krishnamurthy
09/2015 – 06/2016	**Study Abroad** in Software Enginerring, University of Limerick, Ireland
09/2012 – 06/2016	**Bachelor** in Software Engineering, Xidian University, China GPA : 3.82/4.0, 91/100 (ranked 1st)
09/2009 – 06/2012	The Affiliated High School Of Shanxi University, Shanxi Province, China

ACADEMIC EXPERIENCE

09/2016 – present	**Graduate Student Researcher** Center for Research and Education in Cyber Security and Privacy (CRESP) University of California, Riverside, USA
06/2021 – 09/2021	**Research Intern** Samsung Research America, USA
06/2020 – 09/2020	**Research Intern** Baidu X-Lab, USA

PUBLICATIONS

CONFERENCE

[C3]
NDSS 22
Progressive Scrutiny: Incremental Detection of UBI bugs in the Linux Kernel
Yizhuo Zhai, **Yu Hao**, Zheng Zhang, Weiteng Chen, Guoren Li, Zhiyun Qian, Chengyu Song, Manu Sridharan, Srikanth V. Krishnamurthy, Trent Jaeger, Paul Yu
Network and Distributed System Security Symposium, NDSS 2022. ⬇ ⚙ Tool ▶ Recording
🏷 Linux Kernel Security, Static Analysis, Symbolic Execution
🔵 Selected Patches for Linux kernel: [Patch1] [Patch2] [Patch3]

[C2]
CCS 21
Statically Discovering High-Order Taint Style Vulnerabilities in OS Kernels
Hang Zhang, Weiteng Chen, **Yu Hao**, Guoren Li, Yizhuo Zhai, Xiaochen Zou, Zhiyun Qian
ACM SIGSAC Conference on Computer and Communications Security, CCS 21. ⬇ ⚙ Tool
🏷 Linux Kernel Security, Static Analysis

[C1]
ESEC/FSE 20
UBITect: A Precise and Scalable Method to Detect Use-before-Initialization Bugs in Linux Kernel
Yizhuo Zhai, **Yu Hao**, Hang Zhang, Daimeng Wang, Chengyu Song, Zhiyun Qian, Mohsen Lesani, Srikanth V. Krishnamurthy, Paul Yu
ACM SIGSOFT International Symposium on Foundations of Software Engineering, FSE 20.
⬇ ⚙ Tool ▶ Recording
🏷 Linux Kernel Security, Static Analysis, Symbolic Execution
🔵 Selected Patches for Linux kernel: [Patch1] [Patch2] [Patch3]

POSTER

| [**Poster1**] | Poster: Assisting Static Analysis with Large Language Models: A ChatGPT Experiment
Haonan Li, Yu Hao, **Yizhuo Zhai**, Zhiyun Qian
2023 IEEE Symposium on Security and Privacy (S&P 2023) |

AWARDS & HONORS

2022	CCS Student Travel Grant
2019	S&P Student Travel Grant
2016	Dean's Distinguished Fellowship Award at University of California, Riverside
	Presidents Volunteer Award (Bronze) at University of Limerick, Ireland
2015	First Prize First Prize Department Scholarship at Xidian University
2014	National Scholarship (top1%) at Xidian University
	Special Scholarship at Xidian University
2013	First Prize Department Scholarship at Xidian University
	Special Scolarship at Xidian University
2011	First Prize at China High School Biology Olympiad (Shanxi Province, rank 33)
	Second Prize at China High School Biology Olympiad (National)
2009	First Prize at Junior High School Biology Competition (Shanxi Province)

REFERENCES

Zhiyun Qian *Everett and Imogene Ross Professor*
Computer Science and Engineering department, University of California, Riverside, USA
Contact: zhiyunq at cs.ucr.edu

Srikanth V. Krishnamurthy *Professor, IEEE Fellow*
Computer Science and Engineering department, University of California, Riverside, USA
Contact: krish at cs.ucr.edu