

Sungwoo Kim

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EDUCATION	Ph.D. in Computer Science, Purdue University, Advisors: Dave (Jing) Tian and Dongyan Xu Objective: Adding reliability and assurance to operating systems through fuzz testing, program analysis, and symbolic execution.	2021 – Present
	B.S. in Engineering, Kwangwoon University Advisor: Suwon Park Major: Electronics and Communications Engineering	2014 – 2020
CONFERENCE PUBLICATIONS	[C2] Fuzz The Power: Dual-role State Guided Black-box Fuzzing for USB Power Delivery Kyungtae Kim, Sungwoo Kim , Kevin Buttler, Antonio Bianchi, Rick Kennell, Dave (Jing) Tian <i>32nd USENIX Security Symposium (Security'23), Anaheim, CA, August 2023 (USENIX '23)</i> Anaheim, CA, August 2023 Acceptance Rate: 29.2%	
	[C1] ShadowAuth: Backward-Compatible Automatic CAN Authentication for Legacy ECUs Sungwoo Kim , Gisu Yeo, Taegyu Kim, Junghwan "John" Rhee, Yuseok Jeon, Antonio Bianchi, Dongyan Xu, and Dave (Jing) Tian <i>Proceedings of the 2022 ACM Asia Conference on Computer and Communications Security (ASIACCS '22)</i> Nagasaki, Japan, May 2022, acceptance rate=18.4%	
CVEs	Linux Kernel Bluetooth Subsystem (9) - CVE-2024-50255, CVE-2024-38620, CVE-2024-36968, CVE-2024-36013, CVE-2024-36012, CVE-2024-36011, CVE-2023-40283, CVE-2023-28866, CVE-2022-45934 Commercial Drone (1) - CVE-2021-34125	
EXPERIENCE	Graduate Research Assistant <i>PurSec Lab, Computer Science Department</i> - Advised by Prof. Dave Tian and Prof. Dongyan Xu. - Researching on automated vulnerability discovery for operating systems.	2021 – Present
	Research Intern <i>PurSec Lab, Computer Science Department</i> - Mentored by Prof. Dave Tian and Prof. Dongyan Xu. - Researched on improving the reliability for in-vehicle network.	Aug. 2020 – Jul. 2021
	Software Engineer <i>Republic of Korea Cyber Command</i> - Developed military software during mandatory military service.	Jun. 2016 – Mar. 2018
TALKS	ACM CCS - DNN binary obfuscation Korea Maritime & Ocean University - Security practices for Controller Area Network (CAN)	Oct. 2025 May 2024
MISC.	- Artifact Evaluation Committee (AEC) at USENIX'24 - Developed & maintainining https://cspapers.org	