

Taekkyung Oh

📍 Republic of Korea 📩 ohtk@kaist.ac.kr ☎ +82 10 9133 2496 🔗 <https://ohtaekkk.github.io/> 💬 ohtaekk

BIO

Taekkyung Oh is a Ph.D student in System Security Lab at KAIST, advised by Professor Yongdae Kim. He received a Master degree from Graduate School of Information Security at KAIST. His research interests are Cellular Network Security, Wireless System Security, Cyber-Physical System (CPS) Security, and Usable Security.

Education

Ph.D	KAIST (Korean Advanced Institute of Science and Technology)	Sep. 2021 – Present
	• Graduate School of Information Security	
	• Advisor: Yongdae Kim	
MS	KAIST (Korean Advanced Institute of Science and Technology)	Sep. 2019 – Aug. 2021
	• Graduate School of Information Security	
	• Advisor: Yongdae Kim	
BS	SKKU (Sungkyunkwan University)	Mar. 2012 – Aug. 2019
	• Electronic and Electrical Engineering	
	• Computer Engineering (double major)	

Publications

LLFuzz: An Over-the-Air Dynamic Testing Framework for Cellular Baseband Lower Layers (To appear)

Tuan Dinh Hoang, **Taekkyung Oh**, CheolJun Park, Insu Yun, Yongdae Kim

Proceedings of the 34th USENIX Security Symposium (Security 2025)

[PDF](#) ↗
[Code](#) ↗
[Media \(KR\)](#) ↗
[Media \(EN\)](#) ↗

Passive Three-Dimensional User Equipment Tracking Using Long-Term Evolution Uplink Signals

Yooho Jang, Juhong Park, **Taekkyung Oh**, Yongdae Kim, Soeng Ook Park

IEEE Transactions on Instrumentation and Measurement (IEEE TIM 2025)

[PDF](#) ↗

Enabling Physical Localization of Uncooperative Cellular Devices

Taekkyung Oh, Sangwook Bae, Junho Ahn, Yonghwa Lee, Tuan Dinh Hoang, Min Suk Kang, Nils Ole Tippenhauer, Yongdae Kim

Proceedings of the 30th Annual International Conference on Mobile Computing and Networking (ACM MobiCom 2024)

[PDF](#) ↗
[Site](#) ↗

LTESniffer: An Open-source LTE Downlink/Uplink Eavesdropper

Tuan Dinh Hoang, CheolJun Park, Mincheol Son, **Taekkyung Oh**, Sangwook Bae, Junho Ahn, Beomseok Oh, Yongdae Kim

Proceedings of the 16th ACM Conference on Security and Privacy in Wireless and Mobile Networks (ACM WiSec 2023)

[PDF](#) ↗
[Code](#) ↗

Void: A Fast and Light Voice Liveness Detection System

Muhammad Ejaz Ahmed, Il-Youp Kwak, Jun Ho Huh, Iljoo Kim, **Taekkyung Oh**, Hyoungshick Kim

Proceedings of the 29th USENIX Security Symposium (Security 2020)

[PDF](#) ↗

(Poster) I Can't Hear This Because I Am Human: A Novel Design of Audio CAPTCHA System

Jusop Choi, **Taekkyung Oh**, William Aiken, Simon S. Woo, Hyoungshick Kim

[PDF](#) ↗

Research Projects

Tracking and identifying devices and call traffic in voice phishing ecosystem	Apr. 2022 - Dec. 2024
• Funded 4.5 million USD by the Korean National Police Agency	
• Project manager	

Developing a technology for detecting an open-source based fake base station	Feb. 2024 - Dec. 2024
• Funded 100K USD by the Korean National Intelligence Service (NIS)	
• Project manager	

Invited Talks

Testing, Analyzing, Improving Security of Cellular Networks with srsRAN	Oct. 2023
• srsRAN Project Workshop, Software Radio Systems (SRS)	Arlington, Virginia, USA
• Video (with Yongdae Kim)	

Voice Phisher Intelligence: Location tracking and infrastructure vulnerability analysis	Nov. 2022
• Security Intelligence Summit (SIS), S2W Inc. (cybersecurity company)	Seoul, South Korea

Security Reports

Incorrect error handling of the malformed downlink packet, resulting in system crash (memory corruption) in MediaTek modem chipsets	2025
• CVE-2025-20708 – MediaTek Security Bulletin	
Incorrect handling of the malformed uplink scheduling message, resulting in an information leak of the UE in Samsung and Google modem chipsets	2024
• CVE-2024-48883 – Samsung Security Bulletin	
Incorrect error handling of the malformed downlink packet, resulting in system crash (memory corruption) in Qualcomm modem chipsets	
• CVE-2024-23385 – Qualcomm Security Bulletin	
Incorrect error handling of the malformed downlink packet, resulting in system crash (memory corruption) in MediaTek modem chipsets	
• CVE-2024-20077 – MediaTek Security Bulletin	
• CVE-2024-20076 – MediaTek Security Bulletin	
Vulnerability in radio control and uplink scheduling mechanism in LTE, GSMA	2023
• CVD-2023-0070	
• CVD-2023-0077	

Honors & Awards

Outstanding Student Researcher Award, TTA	Apr. 2025
• Chair's award, Telecommunications Technology Association	
Student Travel Grant for ACM MobiCom 2024	Nov. 2024
• Funded by ACM SIGMOBILE	

Korean Government Scholarship	Sep. 2019 - Present
• Full-ride scholarship for MS and Ph.D. programs	

Undergraduate Research Conference in College of Software, SKKU	Nov. 2018
• Bronze prize	
Dean's List, SKKU	Sep. 2017 & Sep. 2018
• Reward for students who got obvious scholar performance (Top 5%)	
Global Idea Contest by Daewoo Electronics	Nov. 2017
• Development of noise canceling technique for home appliances	
• Honorable mention award	
Idea Contest of Assistive Technology Device for Disabled Students by the Korean Ministry of Education	Dec. 2016
• Development of function-graph converter for blind	
• First prize (Minister's award, Ministry of Education)	
Jinggeomdari Scholarship, SKKU	Sep. 2016
• Scholarship for students who got obvious scholar performance	

Experience

University of Florida , Visiting Scholar	Oct. 2025 – Apr. 2026
• Conducting research on cellular network security at the Florida Institute for Cybersecurity (FICS) Research	
KAIST , Counseling Assistant	Feb. 2024 – Feb. 2025
• Conducting over 30 student counseling sessions	
Republic of Korea Marine Corps , External Security Advisor	Apr. 2023 – Dec. 2024
• Analyzing global trends in cyber warfare techniques and strategies	
Paper review , External (secondary) reviewer	
• IEEE Symposium on Security and Privacy (SP 2024)	
• USENIX Security Symposium (Security 2023)	
• Network and Distributed System Security Symposium (NDSS 2020 - 2021)	
KAIST , Teaching Assistant	Sep. 2020 – Aug. 2022
• (EE488) Introduction to Cryptography Engineering 2022 Spring	
• (EE515) Theory of Hacking (Security 101) 2021 Fall	
• (CS448) Introduction to Information Security 2021 Spring	
• (IS521) Information Security Laboratory 2020 Fall	
Republic of Korea Ministry of Education , External Software Advisor	Dec. 2019
• Consulting on the development of Braille devices and assistive applications for visually impaired individuals	
SKKU Security Lab , Undergraduate Researcher	Dec. 2016 - Dec. 2018
• Usable security and voice authentication (advised by Prof. Hyongshick Kim)	
SKKU System Consultant Group , Web Developer	Mar. 2016 - Jul. 2017
• Full-stack developer for web applications (JavaScript, SQL, HTML, CSS)	
Republic of Korea Army , Combat Engineer	Oct. 2013 - Jun. 2015

Languages & Skills

- Korean (Native)
- English (Upper intermediate)
- Python and CUDA
- C, C++
- LaTeX
- Web development (JavaScript, SQL, HTML, CSS)