

Byeongsu Woo

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EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) <i>Ph.D. Student in Graduate School of Information Security</i>	Sep. 2024 – Present
Korea Advanced Institute of Science and Technology (KAIST) <i>M.S. in Graduate School of Information Security</i>	Sep. 2022 – Aug. 2024
Sungkyunkwan University (SKKU) <i>B.S. in College of Computing, <i>Summa Cum Laude</i></i>	Mar. 2018 – Aug. 2022 GPA: 4.39/4.5

HONORS AND AWARDS

2025 ACSAC Student Conferenceship Annual Computer Security Applications Conference The grant for students participating ACSAC (\$2153)	Oct. 2025
Best Paper Award, 2024 Conference on Information Security and Cryptography-Winter Korea Institute of Information Security & Cryptology 3rd place	Nov. 2024
The National Scholarship for Science and Engineering The scholarship supporting undergraduates with strong academic performance in science and engineering	2020 – 2022
SKKU Bugbounty Reported a bug reading others' secret posts on the university website 3rd place	Nov. 2021
SKKU College of Computing Dean's List Award Recognition of high scholastic achievement	2018 – 2021
Best Paper Award, 2020 Summer Conference of KINGPC Korean Institute of Next Generation Computing 3rd place	Aug. 2020

EXPERIENCE

Cyber Security Systems Research Laboratory, KAIST Graduate student	Sep. 2022 – Present
Cysecu Laboratory Researcher	Jul. 2024 – Jun. 2025
Hackers In inTrusion Laboratory, SKKU Undergraduate research assistant Contributed to analyzing Mac OS	Jul. 2021 – Jul. 2022
Best of the Best 9th Vulnerability analysis track Project manager of PlayStation 4 jailbreak project	Jul. 2020 – Feb. 2021
Computer System Laboratory, SKKU Undergraduate research assistant	Aug. 2019 – Jun. 2020

Thesis

1. **M.S. Thesis**

Title: *PIM-ORAM: Accelerating ORAM Primitives with Commodity DRAM Processing-In-Memory*

Date: June 2024

Advisor: Brent Byunghoon Kang

Korea Advanced Institute of Science and Technology (KAIST)

International Conferences

1. **PIM-ORAM: Towards Oblivious RAM Primitives in Commodity Processing-In-Memory**
Byeongsu Woo, Duy Kha Dinh, Youngkwang Han, Brent Byunghoon Kang*, Hojoon Lee*
2025 Annual Computer Security Applications Conference (ACSAC), Honolulu, HI, USA, December 2025
Acceptance Rate: 20.7% (84/406)
2. **Interstellar: Fully Partitioned and Efficient Security Monitoring Hardware Near a Processor Core for Protecting Systems against Attacks on Privileged Software**
Yongho Song, **Byeongsu Woo**, Youngkwang Han*, Brent Byunghoon Kang*
2024 ACM SIGSAC Conference on Computer and Communications Security (CCS), Salt Lake City, USA, October 2024
Acceptance Rate: 16.9% (331/1964)
3. **GENESIS: A Generalizable, Efficient, and Secure Intra-kernel Privilege Separation**
Seongman Lee, Seoye Kim, Chihyun Song, **Byeongsu Woo**, Eunyong Ahn, Junsu Lee, Yeongjin Jang*, Jinsoo Jang*, Hojoon Lee*, Brent Byunghoon Kang*
39th ACM/SIGAPP Symposium On Applied Computing (SAC) 2024, Avila, Spain, April 2024
Acceptance Rate: 23.3% (180/773)

Domestic Conferences

1. **Fully-partitioned and Efficient Instruction-tracing Monitoring Hardware for Protecting DNN Model**
YongHo Song, **Byeongsu Woo**, Youngkwang Han*, Brent Byunghoon Kang*
2024 Conference on Information Security and Cryptography-Winter, Gwangju, Korea, November 2024
Best Paper Award
2. **Fuzzer for Exploring Vulnerabilities in Discord**
Byeongsu Woo, Hyoungkee Choi*
2022 Spring Conference of Korea Society for Internet Information, Mokpo, Korea, April 2022
3. **A Secure Computation Offloading Scheme based on Trusted-Execution Environment**
Byeongsu Woo, Myeongsu Kim, Jongyoon Kim, Jongseok Kim, Euseong Seo*
2020 Summer Conference of Korean Institute of Next Generation Computing, Jeju Island, Korea, August 2020
Best Paper Award