LinkedIn | GitHub | Homepage

Location: Seoul, Korea

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RESEARCH INTERESTS

Security, Open-Source Contribution, Embedded Firmware

EXPERIENCE

Penn State College of IST

Jan 2024 - Jan 2025

Research Assistant/Associate

Westgate Building, University Park, PA 16802

• Security research of DDS, RTPS Protocol, LLVM, Embedded Software

SW Maestro June 2022 – Dec 2022

13rd Trainee

311, Teheran-ro, Gangnam-gu, Seoul, Republic of Korea

- Project planing and development for 6 months as a team of 3 people
- Development of web application about online study management service with online real time communication

EDUCATION

Kwangwoon University

Seoul, Korea

Major in Information Engineering, Bachelor of Science in Computer Engineering. GPA 4.05/4.5

Feb 2019 - Present

HONORS AND AWARDS

KISA Whitehat Together Season 3, 1st prize, KISA, 2024

Topcit 20th Chief of the Defence Staff award, IITP, 2023

Topcit 20th Presidential award, Kwangwoon University, 2023

KISA Whitehat Together Season 2, 3rd prize, KISA, 2023

OSSCA Open Source Contribution Academy Mentee 2nd prize - uftrace, IITP, 2023

Topcit 19th Presidential award, Kwangwoon University, 2023

Magna Cum Laude(Chambit) Scholarship, Kwangwoon University, 2023

Topcit 18th Presidential award, Kwangwoon University, 2022

Software Competence Excellence Scholarship, Kwangwoon University, 2019, 2022

Wooribank Penetration testing Competetion (WooriCON) 3rd Prize, 2022

Excellence Award in Ministry of National Defense Start-Up Challange, Republic of Korea Ministry of National Defense, 2021

PROJECTS (PUBLICATIONS)

Differential Fuzzing for Data Distribution Service Programs with Dynamic Configuration *ASE 2024*

2024

• Dohyun Ryu, Giyeol Kim, Daeun Lee, **Seongjin Kim**, Seungjin Bae, Junghwan Rhee, Taegyu Kim

BUG BOUNTY Naver Bug Bounty 2022 - 2023Naver Found 3 Unique vulnerability **Kakao Bug Bounty** Kakao Found 2 Unique vulnerability **KISA Whitehat Together** 2023 - 2024KISA, FindtheGap Found 63 Unique vulnerability • Found 8 Unique vulnerability in Season 2, includes XSS / Pararmeter Manipulation / File Upload • Found 55 Unique vulnerability in Season 3, includes XSS / IDOR / Privilege Escalation / Account Takeover / etc. Achieve 55 KVEs FindtheGap X-MAS CTB 2023 - 2024FindtheGap Found 10 Unique vulnerability **FindtheGap** 2024 Found 4 Unique vulnerability **FindtheGap** Achieve 3 KVEs 2023 - 2024 **Dreamhack Bug Bounty PatchDay** Found 2 Unique vulnerability **CVE** CVE - Gnuboard g6 2024 Gnuboard [CVE-2024-24156] Stored XSS in writing reply via wr_content parameter • [CVE-2024-24157] Stored XSS in writing board via wr_content parameter **CVE - FastDDS** 2024 eProisma • [CVE-2024-30258] DoS when publisher send malformed packet • [CVE-2024-30259] Heap buffer overflow when publisher send malformed packet **CVE - OpenDDS** 2024 OpenDDS • [CVE-2023-52427] Segmentation fault while create_datawriter • [CVE-2024-30915] Process killed with high RAM usage when setting malicious DataReaderQoS setting

CVE - REDACTED 2024 - 2025

REDACTED

· Found 10 CVEs in private project in PSU lab

PROJECTS (DEVELOPMENT)

Conffuzz June 2024 - March 2025

Security lab, Pennsylvania State University

- Develop the whole system; includes parser, mutator, etc.
- Found 10 CVEs

DDSFuzz Jan 2024 - Oct 2024

Security lab, Pennsylvania State University

- Develop network harness for FastDDS, OpenDDS, CycloneDDS
- Found 10+ CVEs

Backtest Toolkit - Stock Signal Backtest Tool

Jan 2023 - Jun 2023

DS Lab, Kwangwoon Univ.

- Develop Backtest Algorithm and Visualize Backtest result
- Develop service with Vue, Django Rest Framework, Deploy service with Docker, Github Workflow
- Project management with Notion, Slack

StudyFlow - Online Study Management Service

June 2022 - Dec 2022

SW Maestro

- Development of web application about online study management service with online real time communication
- · Develop service with React, Express, Deploy service with AWS amplify, EC2, Github Workflow
- Project management with Jira, Git

klas-helper Oct 2021 – Now

KW Open Source Group

- Development/Maintenance for 3 years as a Open source Contributor
- Development of an extension program that revamped the LMS system within the university
- Average DAU: 8,400 (80% of Active University student)
- Project management with Github Issue / Pull Request

CERTIFICATIONS

- Oct. 2022 **TOPCIT**, Level 3 (635)
- Oct. 2023 TOPCIT, Level 4 (733)