

TAEHOON KIM

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WORK EXPERIENCES

ADTechnology

SoC System Engineer

January 2025 - Present

Pangyo, Korea

- Developing firmware for Arm-based SoC processors, focusing on low-level system software for embedded security environments.
- Hands-on experience with Arm's open-source trusted firmware projects: Trusted Firmware-M (TF-M), Trusted Firmware-A (TF-A), and Realm Management Monitor (TF-RMM), including implementation, integration, and customization.
- Contributes to firmware design for secure boot, memory protection, and runtime security in Company's embedded SoC platforms.

Computer Architecture and Operating System Lab, POSTECH

M.S. Candidate

April 2023 - February 2024

Pohang, Korea

- Designed and implemented a compression-based address mapping scheme for NAND flash-based SSDs, improving storage cost efficiency. (KSC'23)

High Performance Computing Lab, POSTECH

Ph.D. Candidate

December 2018 - March 2023

Pohang, Korea

- Led software development for IITP project on Ransomware Attack Detection and Recovery; deliverables include a registered patent and software enrollment. (IITP 2018-0-01392)
- Developed UEFI/EDK II-based firmware tamper detection and recovery software (Software Enrollment).
- Participated in a blockchain platform interoperability project. (IITP-2018-0-01441)

EDUCATION

Computer Architecture and Operating System Lab, POSTECH

M.S. in Computer Science & Engineering

Advisor: Prof. Jisung Park

Overall GPA: 3.22 / 4.3

April 2023 - February 2024

High Performance Computing Lab, POSTECH

Ph.D Candidate in Computer Science & Engineering

Advisor: Prof. Jong Kim

March 2019 - March 2023

Pohang University of Science and Technology (POSTECH)

B.S. in Computer Science & Engineering

Mandatory Military Service in November 2013 - August 2015

Overall GPA: 2.9 / 4.3

March 2010 - February 2019

TECHNICAL INTERESTS

Industry (2025–Present)

- Arm Trusted Firmware: TF-M, TF-A, TF-RMM
- SoC Firmware Development and Integration
- Secure Boot, Memory Protection, and Runtime Security
- Low-Level Embedded System Software for Arm-based SoCs

Academia (2018–2024)

- Storage System: Address Mapping and Compression for NAND-based SSDs
- System Security: Ransomware Detection and Recovery
- Memory System and Computer Architecture - UEFI/EDK II Firmware Development

TECHNICAL STRENGTHS

Languages	C, C++, Python, Rust(Weak)
Frameworks	EDK II, TF-M, TF-A, TF-RMM

TEACHING EXPERIENCE

POSTECH	Teaching Assistant for Introduction to Computing (2020)
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PUBLICATION, PATENT & SOFTWARE ENROLLMENT

Publication

- 김태훈, 조성준, 조현욱, 박지성. 낸드 플래시 기반 저장장치의 비용효율성 개선을 위한 범용 무손실 압축 기반 주소사상정보 압축 연구. 한국소프트웨어종합학술대회(KSC), 2023

Patent

- 김종, 나동빈, 김태훈, 지상우, 이경민. 랜섬웨어 피해 복원을 위한 P2P 디스크 복원 방법 및 장치.

Software Enrollment

- 김태훈. EDK II(이디케이 2)에 기반한 펌웨어 변조 탐지 및 복구 프로그램.