TAEHOON KIM

205 Jangmiro-92bungil 13-2 ◇ Bundang-gu, Seongnam-si, Gyeonggi-do, Korea 13505

+82 10-6768-7791 ◇ gth1919@adtek.co.kr, taehoonkim.gth1919@gmail.com

WORK EXPERIENCES

ADTechnology — January 2025 - Present
SoC System Engineer — *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 — April 2023 - February 2024
M.S. Candidate — *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 — December 2018 - March 2023
Ph.D. Candidate — *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 — April 2023 - February 2024
M.S. in Computer Science & Engineering
Advisor: Prof. Jisung Park

Overall GPA: 3.22 / 4.3

High Performance Computing Lab, POSTECH — March 2019 - March 2023
Ph.D Candidate in Computer Science & Engineering
Advisor: Prof. Jong Kim

Pohang University of Science and Technology (POSTECH) — March 2010 - February 2019
B.S. in Computer Science & Engineering
Mandatory Military Service in November 2013 - August 2015

Overall GPA: 2.9 / 4.3

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)

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.