YUNSEONG KIM

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Professional Experience

Ericsson Seoul, South Korea System Software Developer 07/2023 - Present

Mobility and Control Development Team

AhnLab Bundang-gu, South Korea

System Software Developer 01/2022 - 06/2023

o EDR(Endpoint Detection and Response) Development Team

Innowireless Bundang-gu, South Korea

Software Developer 8/2018 - 12/2021

o Server Software Development Team

EDUCATION

Korea Aerospace UniversityB.S. in Electronics and Avionics Engineering
Goyang, South Korea
03/2010 - 02/2018

Linux FoundationOnlineLFD441: Security and the Linux Kernel7/2024 - 7/2024

IBM Z Day Program Online

IBM Z Security Certificate 10/2024 - 10/2024

KEY PERFORMANCES

o Linux Kernel Security Development

- * Developed security modules using LSM, kprobe, and eBPF
- * Profiled and optimized CPU, memory, and I/O performance with perf tools
- Upstream Linux Kernel Contributions
 - * Reported 3 security vulnerabilities: #1, #2, #3 and submitted patches for the mainline kernel: #1, #2, #3
 - * Performed backporting of vulnerability fixes to stable Linux kernel releases
- Maintainer of the Linux perf tools wiki; uftrace contributions: #1, #2
- Security R&D in 5G Core Systems
 - * Find vulnerabilities from ASN.1 codec to 5G NGAP protocol handling
- o Cloud-Native Distributed Systems
 - * Developed large-scale distributed 5G applications using Erlang/OTP

TECHNICAL SKILLS

- Linux Kernel Security Module Development using QEMU, LSM, crash tools, ftrace, perf tools and Wireshark
- Strong C/C++ programming and debugging skills
- Fuzzing with syzkaller and AFL++; source control with Git; CI/CD with Jenkins; scripting with Erlang/OTP, Python, and shell scripts
- o Linux Kernel CI/CD and Verification Automation
 - * Managed multiple Jenkins pipelines on virtualized infrastructures: VMware ESXi, vSphere

Talks & Publications

- Head First Reporting of Linux Kernel CVEs: Practical Use of the Kernel Fuzzer
 - * Presented Linux kernel CVE discovery using syzkaller, including KSMBD and s390x vulnerabilities
- o Speaker at DebConf24: perf In Action page fault comparison and fuzzing use cases and techniques for Linux perf
- o ZYBO Z7-20 AES Crypto Accelerator HW/SW co-development on the PetaLinux v2025.1
- o Hackster.io: ZYBO Z7-20 Webcam on the PetaLinux Project