

# YUNSEONG KIM

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## PROFESSIONAL EXPERIENCE

<b>Ericsson</b> System Software Developer ◦ Mobility and Control Development Team	Seoul, South Korea 07/2023 - Present
<b>AhnLab</b> System Software Developer ◦ EDR(Endpoint Detection and Response) Development Team	Bundang-gu, South Korea 01/2022 - 06/2023
<b>Innowireless</b> Software Developer ◦ Server Software Development Team	Bundang-gu, South Korea 8/2018 - 12/2021

## EDUCATION

<b>Korea Aerospace University</b> B.S. in Electronics and Avionics Engineering	Goyang, South Korea 03/2010 - 02/2018
<b>Linux Foundation</b> LFD441: Security and the Linux Kernel	Online 7/2024 - 7/2024
<b>IBM Z Day Program</b> IBM Z Security Certificate	Online 10/2024 - 10/2024

## KEY PERFORMANCES

- **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; ufttrace contributions: #1, #2**
- **Security R&D in 5G Core Systems**
  - \* Find vulnerabilities from **ASN.1 codec** to **5G NGAP protocol handling**
- **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
- **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 KSMDB and s390x vulnerabilities
- **Speaker at DebConf24: perf In Action** – page fault comparison and fuzzing use cases and techniques for Linux perf
- **ZYBO Z7-20 AES Crypto Accelerator** HW/SW co-development on the *PetaLinux v2025.1*
- **Hackster.io: ZYBO Z7-20 Webcam on the PetaLinux Project**