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
  ○ EDR(Endpoint Detection and Response) Development Team

Innowireless   Bundang-gu, South Korea
Software Developer   8/2018 - 12/2021
  ○ Server Software Development Team

Education

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

Linux Foundation   Online
LFD441: Security and the Linux Kernel   7/2024 - 7/2024

IBM Z Day Program   Online
IBM Z Security Certificate   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**; **uftrace 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 KSMBD 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*