Minseo Jacob Park

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Timeline

Sept 2019 - Dec 2020	University of Waterloo - Mechatronics Engineering	Waterloo, ON
June 2021 - Dec 2021	Mandatory Enlistment Wait Period	
Dec 2021 - Aug 2022	Republic of Korea Army (mandatory military service)	Daegu, S. Korea
Aug 2023 - July 2025	42 Seoul - programming school ● South Korean branch of Ecole 42	Seoul, S. Korea
July 2025 - Sept 2025	42 Wolfsburg (SEA:ME)	Wolfsburg, Germany
Oct 2025 - Present	Independent Study	Jeonju, S. Korea

Personal Projects

B - Recreating a compiler for the B language to i386 (x86) assembly

- Implemented Single Pass Compiler using Flex and Bison LALR(1)

Linux From Scratch - Building your custom linux distribution entirely from source

- Debug boot failure using **dmesg, earlyprintk** and GRUB/EFI logs
- Verified kernel behavior inside VirtualBox and bare metal environment

Libasm - Coding simple functions like strlen and sorting algorithm in x86 assembly

- Toy with SIMD (Intel AVX) programming. Used NASM with intel syntax.

Malloc - Implement and explore the user-level management of dynamic memory allocation

Process and Memory - Implement and add a syscall to the linux kernel

Ft_fracol - Study and explore different fractals and visualize it using the Minilibx library

- **Leveraged OpenMP** to parallelize serial loops, enabling efficient multi-threaded execution

Little-penguine-1 - writing simple linux device drivers. Project based on Eudyptula Challenge

Drivers_and_interrupts - Writing a kernel level keylogger as a LKM for linux kernel

Independent Study

Operating System Engineering - Performed Xv6 kernel development labs via MIT OCW (6.1810) to simulate and debug OS architectures

- Explore and implement different OS concepts (System calls, Page Table, Traps, Copy-on-write, Network driver, readers-writer lock, file system, mmap)

Computer Architecture - ELE 475 by Princeton on coursera. Covers many advanced topics such as Pipelining, Superscalar, VLIW, Cache, Branch Prediction and more.

Arduino with AVR C - Explore bare metal programming in AVR C Arduino Uno (atmega328p)

Skills

C, C++, Python, Linux, Git, Bash, GDB, x86, QEMU, Make, GCC, CAN, strace