

Minseo Kim (김민서)

✉ kimminss0@outlook.kr  github.com/kimminss0  blog.mskim.org

Education

POSTECH (Pohang University of Science and Technology)

Feb 2022 – Present

B.S. in Computer Science and Engineering

Work Experience

ENERZAI Inc.

Jul 2026 – Present

AI Compiler Engineer

Developing a compiler for an in-house programming language targeting high-performance AI workloads on edge devices.

- Alternative Military Service (산업기능요원)
- Skills: MLIR, C++

Wordbricks LLC

Jun 2025 – Aug 2025

Full-stack Web Developer Intern

Led and developed an LLM-based web crawling API and dashboard as a Product Owner.

- Key Contributions:
 - Planned and launched the service.
 - Designed a web crawling API.
 - Developed the API dashboard and documentation website.
- Skills: Next.js, Hono, Cloudflare Workers, Vercel AI SDK, Prisma, Supabase

POSTECH Data Systems Lab

Jan 2023 – Jan 2024

Undergraduate Researcher

Led the end-to-end development of an integrated database website for an academic conference.

- Key Contributions:
 - Developed backend and frontend.
 - Designed a data integration pipeline.
 - Built real-time data visualization and optimized database queries.
- Skills: React.js, Express.js, PostgreSQL, Airflow, Docker, Nginx

Personal Projects

Tiny ML Compiler

May 2025

Compiler for Tiny ML, a functional programming language based on Standard ML.

- Key Implementations:
 - Hindley-Milner type system based on Algorithm W, featuring let-polymorphism.
 - Code generation to the assembly language of a virtual machine.
 - Support for algebraic data types (ADTs), including recursive types and pattern matching.
 - Support for closures, higher-order functions, and recursive functions.
- Skills: OCaml

Pintos

Sep 2025 – Dec 2025

Educational operating system for 80x86 architecture (based on Stanford CS140)

- Key Implementations:
 - Kernel-level threading with priority scheduling and synchronization primitives (locks, semaphores).
 - System call implementation for user program execution, process management, and file operations.
 - Virtual memory system featuring demand paging, stack growth, and memory-mapped files.
- Skills: C, x86 Assembly, GDB

RISC-V CPU

Mar 2025 – May 2025

5-stage pipelined RISC-V CPU (2-person project)

- Implemented a subset of the RV32I ISA.
- Key Implementations:
 - Hazard detection unit with data forwarding.
 - Gshare branch predictor with a 2-bit saturating counter and pattern history table (PHT).
 - Direct-mapped cache.
- Skills: Verilog HDL

Sponge

Mar 2025 – May 2025

Educational network stack development project (based on Stanford CS144)

- Key Implementations:
 - TCP flow control.
 - Routing table lookup and packet forwarding.
 - ARP and IP packet processing.
- Skills: C++

BaroKey

Nov 2023

Submitted to the 3rd UniDThon Hackathon (team project).

- Developed a web service that provides users with real-time emergency keywords, such as safety threats or natural disasters, based on their location.
- Role: Team Leader, Full-stack Developer (Led Backend & Infrastructure)

Skills

Programming Languages	C, C++, Python, TypeScript, Java, Go, OCaml
System	Linux, FreeBSD, GDB
Web Development	React.js, Next.js, Express.js, FastAPI
Tools / Miscellaneous	Docker, Nginx, SQL