BeomSeok Kim

Founder & Lead Engineer

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EXPERIENCES

Co-founder 12/2025 – Present
desk of einstein Seoul

- **Summary:**
  - Visioning and building an **infinite whiteboard-based workspace** that serves as a unified ecosystem for complex ideation and collaboration.
  - Developing a **versatile canvas-first platform** where the boundary between documents, tasks, and communication is dissolved through a highly flexible and infinite extension architecture.
- **Key Achievements:**
  - **Real-time Distributed Systems:** Engineered a high-concurrency synchronization and state persistence layer utilizing Cloudflare Workers and Durable Objects, achieving sub-100ms latency for global real-time collaboration.
  - **Storage & Performance Optimization:** Architected a scalable data persistence strategy using Cloudflare R2, optimizing asset delivery and reducing infrastructure overhead for heavy canvas workloads.
  - **Mobile Ecosystem & Native Integration:** Extended the platform ecosystem to mobile using **Capacitor**, implementing deep native features including **iOS Widgets, Apple Watch extensions, and Siri Shortcuts**. Established a **Capgo-based OTA update pipeline**, enabling rapid, zero-downtime feature delivery across iOS and Android.
  - **Cross-platform Core (Desktop):** Developed a high-performance desktop client using Electron and React, implementing advanced rendering optimizations to ensure a fluid, native-like user experience on complex, object-heavy canvases.
  - **Unified Full-stack Infrastructure:** Orchestrated a seamless ecosystem using Next.js and Supabase, leveraging Server-Side Rendering (SSR) and Static Site Generation (SSG) to maximize SEO performance while implementing robust authentication and real-time database triggers.

Co-founder & Product/Backend Lead 11/2024 – Present
mefriend.ai Seoul

- **Summary:**
  - Driving the growth of **mefriend.ai**, a **next-gen AI character ecosystem** focused on high-fidelity user experiences. Leading cross-functional efforts spanning backend architecture, retention loops, and sustainable monetization models.
- **Key Achievements:**
  - **Backend Architecture:** Architected high-performance microservices using **NestJS** and **FastAPI**, establishing an event-driven system with **Redis Streams** and **BullMQ**. Enforced end-to-end type safety between client and server using **ts-rest**, significantly reducing runtime errors.
  - **Infra & DevOps:** Orchestrated scalable **Kubernetes** clusters on hybrid cloud (**AWS** for Prod, **GCP** for Dev) to optimize operational costs. Streamlined high-speed CI/CD pipelines using **Jenkins** & **ArgoCD** (GitOps) and managed secrets via **Infisical**.
  - **AI Agents & Core:** Designed intelligent dialogue agents using **LangGraph**, implementing **long-term memory** systems and **RAG pipelines**. Integrated **Langfuse** for deep LLM observability and evaluation.
  - **AI Serving & Optimization:** Served cost-efficient LLM inference on **RunPod** (Serverless GPU), optimizing serving costs while maintaining high availability.
  - **System Observability:** Established a robust monitoring system using **Grafana** and **Sentry** to track error rates and system latency (p95/p99), ensuring service reliability.
  - **Product & Growth:** Integrated subscription models using **RevenueCat** and **Stripe**, and established data-driven growth loops analyzing user behavior with **Mixpanel** and **AppsFlyer**.

Co-founder & Hardware Lead 01/2024 – 10/2024
naly.ai Seoul

- **Summary**
  - Spearheaded the end-to-end development of **naly, an AI companion speaker**, partnering with **Thundercomm (Qualcomm subsidiary)** to integrate proprietary chips. Led the full engineering lifecycle from custom OS development to PCB layout and hardware debugging.
- **Key Achievements**
  - **Embedded OS & BSP:** Engineered a custom Linux OS for Qualcomm QCS405 using **Yocto Project**, handling complex Board Support Package (BSP) configuration and kernel optimization for audio processing.
  - **Hardware Design:** Executed complete PCB design from schematics to **artwork & routing** using EasyEDA & KiCad. Conducted on-site debugging at manufacturing facilities in **Shenzhen** to resolve critical hardware integration issues.
  - **Edge AI:** Implemented lightweight wake-word detection models using **ONNX**, enabling low-latency on-device inference.
  - **IoT Infrastructure:** Established a robust device management pipeline using **AWS IoT Core**, managing OTA (Over-The-Air) firmware updates and device connectivity.

Intern 09/2023 – 12/2023
Samsung S.LSI NPU Group Hwaseong City

- Conducting studies for HW accelerators for transformer based LLM models
- Designing architectures for matrix multiplication, ReLU function, normalization
- Estimating performance for designed accelerators

Research Intern 06/2023 – 07/2023
KAIST Seoul

- Conducting in-depth research on techniques to reduce the sim2real gap in robotic engineering.
- Collaborating with a team of researchers and engineers to develop effective strategies for transitioning robotic systems from reinforcement learning based simulated environments to real-world applications.
- Developing control methods for robot actuators to enhance the sim2real gap in a reinforcement learning-based simulator

Reseach Intern 03/2023 – 05/2023
SKKU Suwon

- Conducted research on optimization for SOTA hand position estimation model using computer vision techniques
- Designed and implemented preprocessing algorithms to improve the efficiency of depth image analysis.
- Developed and optimized inference algorithms for real-time hand position estimation.

Research Intern 01/2023 – 02/2023
POSTECH Pohang

- Conducted research in the field of System-on-Chip (SoC) placement using generative models, specifically Generative Adversarial Networks (GANs).
- Collaborated with a team of engineers and researchers to explore the application of GANs in optimizing SoC placement, a critical step in the chip design process.

EDUCATION

Bachelor's Degree 03/2019
Sungkyunkwan University Suwon
Department of Electronic and Electrical Engineering Senior Student Overall GPA: 4.29/4.5 Major GPA: 4.47/4.5

SKILLS

Backend
Nestjs, FastAPI, Nodejs

Infra / DevOps
AWS, Kubernetes, Cloudflare, Jenkins, Grafana

AI
LangChain, LangGraph, LangFuse, GPU Infra

Frontend
React, Next.js, Electron, Tailwind CSS

DataBase
MongoDB, Supabase, PostgreSQL, Redis

System & Embedded
C/C++, Yocto, Device Drivers, Linux Kernel Internals

LANGUAGES

English ●●●●○
Professional Working Proficiency (TOEIC 975/990)

Korean ●●●●●

HONORS & GRANTS

2025 DIPS Project (Leading AI Startup) 2025
Ministry of SMEs and Startups
Selected for the "Super Gap" (DIPS 1000+) program, securing approx. **$300k+ in R&D funding** over 3 years for AI innovation.

Youth Entrepreneurship Academy (Pre-Seed Grant) 2024
Korea SMEs and Startups Agency (KOSME)
Selected for the prestigious national incubator program (CheongChangSa), securing **~$50k in non-equity funding**.

Startup Commercialization Package 2024
Hanam Urban Innovation Corporation
Selected for 2 consecutive years, securing approx. **$15k in grants** for prototyping and marketing commercialization.

Grand Prize, Creative ICT Competition 2024
SKKU
Awarded 1st Place (Prize: ₩10M) for developing the AI hardware 'naly', recognized for technical excellence

Future Scholars Scholarship (Full Tuition)
SKKU
Awarded for research potential (2024 - Present)

Academic Excellence Scholarship (Top 5%)
SKKU
3x Recipient (2022 - 2023)

Student Success Creativity Scholarship
SKKU
Awarded for project innovation (2023)

Dean's List
SKKU
4x Honoree for outstanding GPA (2019 - 2023)