

# Kim Yungju

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## EDUCATION

### NATIONAL UNIVERSITY OF SINGAPORE (NUS)

#### *Bachelor of Computing (Computer Science), Honours*

Aug 2024 - Present

- Transferred from BBA & Economics to Computer Science to pursue technical specialization
- Expected Graduation: December 2027

### *Double Honours Degree in BBA and Economics*

Aug 2021 - Aug 2022

### INTERNATIONAL SCHOOL OF KUALA LUMPUR (ISKL)

#### *International Baccalaureate (IB Diploma)*

Aug 2018 - Jun 2021

- Achieved distinctions in Mathematics, Chemistry, Business, Economics, English, and Korean
- IB Bilingual Diploma awarded | Score: 45/45 (Top 1%)

## EXPERIENCE

### LUMCLOON ENERGY

#### *Data Center Systems Intern*

Dec 2025 - Jan 2026

- Authored a 46-page internal assessment on Ireland's new Large Energy User (LEU) framework, analyzing the transition of the data center market into a regulatory-driven maturity stage.
- Modeled grid capacity constraints and de-rating mechanisms for hyperscale deployment, evaluating the integration of SOFC (160MW), BESS (250MW), and CPPA renewables.
- Identified a 73MW capacity deficit by applying CRM de-rating curves and formulated a Credible Plan for 80% renewable matching, securing the technical foundation for a compliant grid connection application.

## CO-CURRICULAR ACTIVITIES

### NATIONAL UNIVERSITY OF SINGAPORE

#### *Developer Group @ NUS Computing | Head of Technology*

Aug 2025 - Present

- Contributed to a student-led tech community (2,300+ followers) connecting communities with technology.
- Designed and developed the organization's website to showcase events, initiatives, and partner collaborations, improving visibility and outreach.
- Organized and managed the technical operations of Hack4Good 2026, a flagship hackathon designing impactful solutions for non-profit organizations.

#### *PriceWise — AI Shopping Agent*

- Developed an autonomous product research agent that compares prices and reviews across retailers, delivering structured receipts via a conversational interface with selective human-in-the-loop approval.
- Engineered a LangGraph agent with 10 orchestrated tools, dual-mode SSE streaming, persistent checkpointing via AsyncPostgresSaver, and conversation summarization with safe message splitting.
- Built with LangGraph, FastAPI, OpenAI, Tavily, Pydantic, PostgreSQL, Next.js, and Docker, deployed on Railway (backend) and Vercel (frontend).

#### *InterviewPilot — AI Mock Interview Platform*

- Built a full-stack mock interview platform that generates role-tailored questions, conducts speech-based interviews with webcam recording, and delivers AI-scored feedback.
- Implemented multi-turn conversational flow with AI-generated follow-up questions, fire-and-forget video upload pipeline with late URL patching, and cross-browser MediaRecorder MIME negotiation.
- Built with Next.js, React, TypeScript, OpenAI, Drizzle ORM, Supabase, and Clerk, with bilingual support (English/Korean) including dual TTS pipeline and CJK PDF export.

#### *Castory — AI Podcast Platform*

- Developed a full-stack SaaS platform enabling users to generate AI-narrated podcasts from trending news via a 5-step guided workflow using OpenAI.
- Implemented chunked TTS pipeline, persistent audio player, full-text search, draft auto-save, and dynamic user profiles with listener analytics.
- Built with Next.js, React, TypeScript, Convex (serverless backend + real-time DB), and Clerk (webhook-synced auth), deployed on Vercel.

## SKILLS AND OTHER INFORMATION

- Fluent in written and spoken English and Korean
- Proficient in Microsoft 365 and Google Suite.
- Academic experience in JavaScript, Java, Python, C, and SQL