

Hyeongwook Lee

hyeongwook.dev@gmail.com | wookie.me

EXPERIENCE

LG Innotek, Ansan, South Korea
Gen AI Engineer

Jan 2023 - Present

- Built an AI-powered internal knowledge assistant (React + FastAPI) with a custom RAG pipeline using Azure OpenAI, Qdrant, and MongoDB, actively used by 20+ executives and team leads weekly for meeting/report preparation deployed on on-premise infrastructure.
- Implemented metadata filtering (date, keywords, document type) and document-level chat for in-context Q&A with source documents.
- Designed AWS migration architecture and cost estimation in collaboration with LG CNS engineers for on-premise platform transition

LG Innotek, Ansan, South Korea
Software Engineer Intern

Jul 2022

- Developed a CNN-based defect image detection system for manufacturing quality control.
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AWARDS

- Customer Excellence Award, 1st Place (DX Division, LG Innotek) - Enterprise LLM web application
 - LG Bootcamp Innovation Award, 2nd Place (LG) - Emotion-detecting AI assistant
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EDUCATION

Pennsylvania State University, University Park, PA
B.S. in Computer Science, Minor in Mathematics

2017 - 2022

GPA: 3.48 | Dean's List (Spring 2018, Fall 2018)

- Capstone: Built the main page and real-time chat interface for Felicity, a telemedicine app (React, Node.js) connecting doctors with underserved communities in Laos.
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PROJECTS

Orbital Junkyard

- Space debris intelligence platform tracking 36,000+ objects with an 18-table Medallion Architecture (Databricks DLT, Delta Lake, AWS S3) and 3D globe visualization (CesiumJS, Next.js).

Seoul Property Tycoon — Snowflake Hackathon 2026 Korea

- AI real estate Investment simulation game using Snowflake Cortex AI for investment advisory, 3-layer price model on 453 Seoul apartments, and Snowpark UDF batch processing with real marketplace data ([Next.js](#), FastAPI, Snowflake, Mapbox)
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CERTIFICATIONS

Databricks Certified Data Engineer Associate

Feb 2026 - Feb 2028

Databricks Certified Generative AI Engineer Associate

Feb 2026 - Feb 2028

AWS Certified Solutions Architect - Associate

Nov 2025 - Nov 2028

SKILLS

Languages: Python, SQL, JavaScript/TypeScript

Frameworks: React, [Next.js](#), FastAPI, PySpark

Data & Cloud: Databricks, Delta Lake, Snowflake, Snowpark, AWS, Azure OpenAI

Databases: PostgreSQL, MongoDB, Qdrant