

HYUNSUK LEE

AI Engineer | LLM Systems · Software Engineering · Enterprise Architecture

Global Talent Visa Holder · London / Essex, UK (Relocatable)

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PROFESSIONAL SUMMARY

AI Engineer with 10 years across manufacturing, FMCG and enterprise IT, spanning software engineering, enterprise architecture and data engineering. Builds production RAG and agentic LLM systems, from prototype through to live service. Global Talent Visa holder.

CORE SKILLS

- Generative AI & LLM Engineering:** RAG architecture · Vector databases & hybrid search (BM25 + vector KNN) · Agentic workflows & tool calling · LangChain · LangGraph · MCP · LLM fine-tuning · Prompt engineering
- MLOps & Data Engineering:** LLMOps · Evaluation frameworks (hallucination rate, precision@k) · Model registry · A/B testing · CI/CD · Monitoring · AWS (Glue, S3, SageMaker) · Azure · Snowflake · Kafka · Spark · Airflow · Terraform · ETL/ELT · Data warehousing
- Machine Learning & Analytics:** PyTorch · TensorFlow · scikit-learn · Anomaly detection · Churn modelling
- Software Engineering & Architecture:** System design · APIs & microservices · Distributed systems · Enterprise integration (ERP/CRM) · Hybrid cloud architecture · PoC-to-production ownership · Stakeholder engagement · Agile · PRINCE2
- Languages & Platforms:** Python · SQL · Java · C# · Go · TypeScript · Docker · Kubernetes · Git · Dynamics 365

WORK EXPERIENCE

AI Consultant (LLM Engineering) 05/2026 – Present
Samsung SDS Europe – London, UK

- Define enterprise AI architecture and technical direction, setting how GenAI services are designed, evaluated and deployed across CRM, e-commerce and marketing platforms.
- Built the core RAG service on on-premise GPUs: fine-tuned, 4-bit quantised open-weight model with Elasticsearch hybrid search (BM25 + vector KNN). Resolution time down 40%.
- Added agentic tool-calling for multi-step queries. Set up evaluation and monitoring: hallucination rate, retrieval precision, A/B tests before release.
- Connected AI services to enterprise systems through MCP and internal APIs, giving agents controlled access to CRM and operational data.

Tech: Python · LLM · LangGraph · MCP · RAG · Elasticsearch · APIs · Cloud · LLMOps · CI/CD · SQL

Enterprise System Specialist / Data Engineer 04/2024 – 04/2026
Gerald McDonald – Essex, UK

- Built a RAG/LLM service from prototype to production. Sole engineer. Adopted by 50+ business users.
- AWS Glue ETL into a Snowflake data warehouse, hybrid retrieval via LangChain, Streamlit front end. Also owned the security review and permission model.
- Added document-processing workflows with tool calling for structured outputs. Manual review time down 60%.
- LLMOps: prompt versioning, precision@k monitoring, regression tests in CI/CD. Also led the Dynamics 365 ERP/CRM migration, designing the hybrid on-premise and cloud architecture.

Tech: Python · LangChain · RAG · AWS (Glue, S3) · Snowflake · Dynamics 365 · LLMOps · CI/CD · Kubernetes

Software Engineer – DevOps & Big Data 09/2021 – 07/2022
MICUBE Solution – Seoul, Korea

- Kafka and Spark pipelines processing sensor data from factory production equipment.
- Anomaly detection models flagging equipment faults before failure. Cut error rates and unplanned downtime.
- Backend services in Java and C#, SQL tuning, and DevOps tooling on Airflow and Kubernetes.

Tech: Python · Java · C# · SQL · Kafka · Spark · Airflow · Kubernetes · Anomaly Detection

Business Analyst / Project Leader

06/2016 – 08/2020

Taekwang – Gimhae, Korea

- Led a £4M MES/SCM programme across multiple manufacturing sites.
- Redesigned planning and logistics processes. 25% efficiency gain.
- Oracle data models, PL/SQL, KPI dashboards, QA audits.

Tech: *Oracle · PL/SQL · MES · SCM · Business Process Analysis*

EDUCATION

MSc Data Science – University of Glasgow, UK

09/2022 – 09/2023

BSc Computer Science – Korea National Open University

09/2020 – 08/2022

BBA Business Administration – Ajou University, Korea

03/2013 – 08/2015

CERTIFICATIONS

- Microsoft Certified: Azure Data Engineer Associate (DP-203)
- Microsoft Certified: Power BI Data Analyst Associate (PL-300)
- PRINCE2 Foundation