Jaehyup Shin

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EDUCATION

Santa Clara University | M.S. in Artificial Intelligence **Expected Jun 2028**
Available for Summer 2027 internship

Hongik University | B.S. in Computer Engineering **Feb 2020**
Overall GPA: 3.85/4.50 | Major GPA: 4.09/4.50 | Merit Scholarships: 4 semesters

TECHNICAL SKILLS

Languages	Python, C++, C, Go, SQL, JavaScript
AI & ML	Machine Learning, LLM Inference, RAG, AI Agents, LangChain, KV Cache
Backend & Data	FastAPI, REST APIs, IBM Db2
Systems & Tools	Linux, Docker, Qt/QML, Embedded Systems, Git/GitHub Actions, CI/CD
Core CS	Data Structures & Algorithms, Object-Oriented Design

PROFESSIONAL EXPERIENCE

DBIS Lab, Santa Clara University | Graduate Student Researcher **Nov 2026 - Present**

- Researching Apache AsterixDB query processing and data management for AI workloads.

Hanwha Vision | Senior Research Engineer **Mar 2024 - Mar 2026**

- Built cross-platform C++/Qt VMS client components for managing thousands of network cameras and recording servers; improved REST-backed device-state consistency.
- Reduced C++ build time by **13.9%** through precompiled-header optimization and repeated benchmarks.
- Administered Git branching, code reviews, and releases for a **50-engineer** team.
- Implemented client-side multi-server device updates, camera controls, and AI video-search filters.

Hanwha Vision | Research Engineer **Jan 2020 - Feb 2024**

- Reduced embedded NVR firmware-information latency from **1,174 ms to 386 ms (67%)** using parallel execution.
- Integrated and hardware-tested an embedded NVR LTE modem in **three weeks** for overseas markets.
- Maintained a large, decades-old embedded NVR C/C++ codebase; automated SoC cross-compilation with Docker.

OPEN SOURCE CONTRIBUTIONS

- **Qualcomm GenieX** - Optimized C++ VLM logits allocation and Python streaming/prefix reuse (PR #1564, #1577; merged).
- **llm-d Router (CNCF)** - Fixed Go P2P KV-cache propagation; added 10 regression tests (merged PR #3677).
- **AWS SageMaker HyperPod CLI** - Improved CloudFormation stack-output handling and tests (merged PR #471).

SELECTED PROJECT

MetricGuard | Trustworthy AI Analytics (IBM Db2Hack) | Top 20 Finalist - Special Recognition **Nov 2026**

- Built verifiable AI analytics with Meta Muse Spark, LangChain, and IBM Db2 using deterministic SQL, independent verification, and audit trails; reproduced a **17% revenue overcount** from faulty joins in test data; **173 tests passed**.

TECHNICAL INSTRUCTION

CodeBridge | Technical Instructor & Course Creator (Inflearn)

- Created **17 hands-on AI and software development courses**, reaching **2,100+ learners** with a **4.7/5 course rating**.