DONG-WON LEE

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EDUCATION

Kyung Hee University Mar 2021 – Present, Expected Aug 2027
B.S. in Software Convergence | GPA: 3.81 / 4.50

EXPERIENCE

ROBROS Dec 2025 – Mar 2026
Software Engineer Intern

- Developed a Python/C++ camera-streaming pipeline for a humanoid robotics SDK, reducing frame latency in robot visual data transmission.
- Validated the SDK on a physical humanoid robot, verifying camera-streaming functionality, system stability, and readiness for VR-based teleoperation.

AIMS Lab, Kyung Hee University Jul 2025 – Dec 2025
Research Intern

- Investigated ChatGPT use in elementary classrooms through hypothesis-driven analysis of a multimodal classroom-interaction dataset.
- Constructed and validated the dataset, defining annotation criteria and verifying consistency for downstream analysis.

Photo Studio Booking Platform Mar 2024 – Jul 2025
Co-founder & Product Manager

- Led a 5-member team across product development, design, and performance marketing for an iOS studio-booking application.
- Drove early-stage operations spanning B2B studio partnerships, user acquisition, and App Store monetization.

PROJECTS

Local LLM Infrastructure for Agentic AI Coding Mar 2025 – Present

- Building a self-hosted, GPU-based LLM environment for coding agents, deploying vLLM on an NVIDIA DGX Spark.
- Tuning serving configurations (KV-cache quantization, prefix caching) to improve inference stability under constrained GPU resources.

Weakly-Supervised Video Anomaly Detection Study Jun 2026 – Present

- Studying weakly-supervised video anomaly detection, focusing on temporal video modeling, multiple instance learning (MIL), and anomaly localization from video-level labels.
- Reproducing VAD baselines such as Sultani et al., RTFM, and RefineVAD on UCF-Crime and ShanghaiTech, with AUC-based evaluation.
- Profiling efficiency-performance trade-offs by measuring the impact of feature length and temporal sampling on computation and detection accuracy.

Reinforcement Learning Study Mar 2025 – Present

- Studying reinforcement learning theory, covering policy optimization, exploration, and offline RL foundations.
- Implementing and evaluating deep RL algorithms in PyTorch on MuJoCo continuous-control benchmarks, including PPO and TD3 with Behavioral Cloning (TD3+BC).

Data-Efficient 3D Gaussian Splatting for Sparse-View Reconstruction Mar 2026 – Jun 2026

- Applying dataset distillation to input-frame selection for 3D Gaussian Splatting, targeting data-efficient novel-view synthesis under sparse views.
- Running reconstruction experiments on the Mip-NeRF 360 dataset using the gsplat framework.

MILITARY SERVICE

Republic of Korea Army Jul 2022 – Jan 2024
Completed military service as Army Sergeant

SKILLS

Languages: Python, C++, TypeScript

ML & Robotics: PyTorch, MuJoCo