Jinwoo Park

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Professional Summary

Experienced Machine Learning Engineer & Technical Lead with a proven record of delivering scalable AI solutions and building high-performing engineering teams. Demonstrated success driving business growth (440% sales increase), leading open-source initiatives (4.5k+ stars), and mentoring engineers through all stages of ML product development. Skilled at turning research into robust, production-ready systems and uniting engineers around ambitious goals in dynamic environments.

Core Skills

- **Programming:** Python, Golang, C/C++, Erlang
- **Generative AI (Image):** Diffusion Models, Personalization, Inversion, Instruction-based Image Editing
- **Deep Learning:** Model Compression, GNN, Reinforcement Learning
- **Frameworks & Tools:** PyTorch, Diffusers, ComfyUI, Kohya
- **Deployment & Infra**: Triton, BentoML, KServe, Kubernetes, Docker, K3S, Helm, ArgoCD, Harbor
- **Backend & Monitoring**: FastAPI, Echo, Prometheus, Grafana, Loki, Promtail

Machine Learning Engineering Experience

Aug 2023 - present

ML Engineer & Project Lead at **SNOW Corporation** (Seongnam)

- Led the launch of “ID Photo” with advanced text-to-image personalization, achieving 440% purchase growth.
- Architected and deployed a Kubernetes-based GPU cluster that accelerated ML development and deployment for cross-functional teams.
- Developed and deployed generative AI pipelines for personalization and image editing, reducing inference latency by 85%.

Nov 2018 - Jul 2023

ML Engineer / Tech Lead - Startup Track at **Medipixel, J.Marple, MakinaRocks, Annotation-AI** (Seoul) *(Medipixel: Nov 2018–Aug 2019, J.Marple: Sep 2019–Oct 2020, MakinaRocks: Oct 2020–Jan 2022, Annotation-AI: Jan 2022–Jul 2023)*

- Led end-to-end AI service delivery in medical robotics, semiconductor, and manufacturing; managed projects from concept to deployment in four high-growth startups from seed to Series B stages.
- Improved real-time image segmentation throughput by 80% at Annotation-AI (optimized Segment Anything from 1024 to 200 calls on CPU).
- Led a GNN/RL-based FPGA/ASIC placement optimization project at MakinaRocks, achieving +0.7% WNS improvement compared to industry and human benchmarks (presented at Deview 2021).
- Secured 1st place and a KRW 200 million award in the AI Grand Challenge 2020 (Model Compression Track) at J.Marple.
- Developed, open-sourced, and maintained SOTA RL algorithms (e.g., Rainbow IQN) with 500+ GitHub stars at Medipixel.
- Designed and operated robust ML/AI serving infrastructure in Kubernetes/K3S; implemented GPU scheduling, scalable backend APIs in FastAPI/Golang, and established distributed system management and comprehensive monitoring.

Software Development Experience

Nov 2013 - Jan 2017

Software Developer at **Ericsson (Sep 2014–Jan 2017), Smilegate (Nov 2013–May 2014)** (Seoul/Anyang)

- Developed LTE RBS Layer-3 features; specialized in automation and distributed test systems.
- Improved network performance and scalability; led memory optimization with over 20% usage reduction.

Open Source & Research

- **Rainbow RL Tutorial** (Creator): **1.9k+ stars** - Hands-on RL education resource
- **PG RL Tutorial** (Co-creator): **900+ stars** - Policy Gradient methods for practitioners
- **Segment-Anything with CLIP** (Creator): **300+ stars** - Advanced vision demo toolkit
- **RL Algorithms** (Lead developer): **500+ stars** - SOTA RL algorithms, open-sourced
- **Model Compression** (Creator): **200+ stars** - Efficient model optimization
- **Active Open Source Contributor**: PyTorch, Huggingface, BentoML, KServe, PyG, GoCV, etc.
- **Publications**: IEEE Access (2021) – Deep RL in medical robotics (9648308)
- **2 patents**: AI-based semiconductor design automation (1024748560000, 1024200710000)

Education

2006 - 2014

Bachelor’s Degree, Computer Science, Dongguk University (Seoul)

- Honors student & Teaching Assistant, Visual Simulation Lab