Jinwoo Park

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Highlights

A domain-independent problem-solver with organizational skills and a record of delivering work ahead of schedule. Seeking challenges in a dynamic environment where innovation and sense of ownership are valued and encouraged.

- Achievements across different domains as a software developer and research engineer.
- Strong programming skills and theoretical understanding in Machine Learning.
- Experience with large-scale distributed systems and concurrent programming.
- Polyglot programming skills in Python, Go, C++, Erlang, and more.

Experience

Aug. 2023 - **ML Engineer**; SNOW Corporation (Seongnam)

- Text-to-image personalization
- Model serving system optimization for cost reduction (SNOW, EPIK)
- Service infrastructure migration to Kubernetes
- Developed internal service infrastructure and functionalities for creators' work efficiency

Skills: *Computer Vision, Python, Docker, Kubernetes, PyTorch, Git*

Jan. 2022 - Jul. 2023 **ML Team Lead (Team Initiator)**; Annotation-AI (Seoul)

- Implemented state-of-the-art computer vision models.
- Designed distributed job scheduling system for MLOps product.
- Designed and implemented high-performance inference service with zero-downtime, continuous delivery, auto-scaling, and monitoring.

Skills: *Computer Vision, Python, Golang, Docker, Kubernetes, PyTorch, Git*

Oct. 2020 - Jan. 2022 **ML Project Lead (Team Initiator)**; MakinaRocks (Seoul)

- Focused on industrial applications of combinatorial optimization problems.
- FPGA/ASIC macro placement with Distributed Reinforcement Learning.
- Agile Coach for teams.

Skills: *Reinforcement Learning, Python, Docker, PyTorch, Git*

Sep. 2019 - Oct. 2020 **ML Research Engineer**; J.MARPLE (Seoul)

- Researched model predictive control methods for nonlinear dynamical systems.
- Developed data-driven active learning methods for dynamic environments.
- Implemented deep learning model compression methods for embedded systems.

Skills: *Model Predictive Control, PID, Model Compression, Python, Docker, PyTorch, Git*

Nov. 2018 - Aug. 2019 **ML Research Engineer**; Medipixel (Seoul)

- Key contributor to guide-wire control automation for PCI project.
- Implemented off-policy learning and behavior cloning methods.
- Introduced test automation systems and agile methodologies for teams.

Skills: *Reinforcement Learning, Python, Docker, PyTorch, Git*

Oct. 2014 - Jan. 2017 **SW Developer**; Ericsson (Anyang)

- Developed LTE RBS L3 features: Mobility, Load Balancing, etc.
- Test automation for unit and integration testing.
- World-class CI/CD experience.

Skills: *C/C++, Erlang, Git, Gerrit*

Nov. 2013 - May. 2014 **SW Developer**; Smilegate (Seongnam)

- Developed in-house TCP/IP socket server testing tool.
- Worked on distributed system development for large-scale server monitoring and control.

Skills: *C++, IOCP, MFC*

Education

2006 - 2014 **Bachelor's Degree, Computer Science**; Dongguk University (Seoul)

- Teaching assistant in Data Structure class
- Research assistant in Visual Simulation laboratory
- Honors student for several semesters
- Have taken many classes regarding Mathematics and Computer Science

OpenSource

Contiributed PyTorch, Huggingface, BentoML, KServe, GoCV, PyG, and more

2023 - **serving-codegen-gptj-triton** (★20); Serving Example of CodeGen-350M-Mono-GPTJ on Triton Inference Server with Docker and Kubernetes

2023 - **segment-anything-with-clip** (★331); Segment Anything combined with CLIP

2019 - **model_compression** (★230); Deep Neural Network Compression algorithms in PyTorch

2019 - **rainbow-is-all-you-need** (★1.9k); A step-by-step tutorial from DQN to Rainbow.

2019 - **pg-is-all-you-need** (★860); A step-by-step tutorial for well-known PG methods.

2018 - **rl_algorithms** (★510); Structural implementation of RL key algorithms

Publications

Dec. 2021 **Deep Reinforcement Learning for Guidewire Navigation in Coronary Artery Phantom**; IEEE Access

Jihoon Kweon; Kyunghwan Kim; Chaehyuk Lee; Hwi Kwon; Jinwoo Park; Kyoseok Song
https://ieeexplore.ieee.org/document/9648308

Patents

Dec. 2022 **[1] 인공지능 기반의 반도체 설계 자동화 방법 METHOD FOR AUTOMATING SEMICONDUCTOR DESIGN BASED ON ARTIFITIAL INTELLIGENCE**; 1024748560000

Jinwoo Park; Tod Myung; Jiyoon Lim; Kyeongmin Woo

Jul. 2022 **[2] 인공지능 기반의 반도체 설계 자동화 방법 METHOD FOR AUTOMATING SEMICONDUCTOR DESIGN BASED ON ARTIFITIAL INTELLIGENCE**; 1024200710000

Jinwoo Park; Tod Myung; Jiyoon Lim; Kyeongmin Woo

Extra Activities

Jan. 2022 **MODUCON 22**; 나의 애자일 개발 문화 도입기: 스타트업을 여행하는 히치하이커를 위한 안내서 https://youtu.be/J4kyBPHWMXs

Dec. 2021 **DEVIEW 21 by Naver**; 강화학습, 산업의 난제에 도전하다!: ASIC 반도체 설계(Floorplan) 자동화 https://deview.kr/2021/sessions/480

Sep. 2021 **강화학습의 수학적 기초와 알고리듬 이해 (K-MOOC) - 전문가 사례소개**

Aug. 2020 **AI Grand Challenge 20**; Won first prize at Model Compression Track (200,000,000 Won)

Nov. 2018 **모두를 위한 컨벡스 최적화 E-book** published; https://convex-optimization-for-all.github.io/