Songeun Kim
ML Software Engineer

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Machine learning engineer with 5+ years of experience in academia and industry, developing real-time perception systems, especially for computer vision, AI, edge deployment and MLOps.

TECHNICAL SKILLS

Languages & Libraries	Python · C/C++ · PyTorch · Sklearn · Pandas · OpenCV
AI Optimization	Quantization, Pruning, cross-platform inference
Tools	CMake · Git · Docker · Kubeflow · AWS

EXPERIENCE

3i Inc, Seoul - *Machine Learning Engineer* | **Dec 2021 - Feb 2025**
- Worked on image processing and computer vision models for the Pivo Tracking System
- Developed image enhancement system with image processing and a diffusion-based model.
- Optimized real-time object detection system using compression and Vulkan GPU acceleration.
- Built ML pipelines for data collection, training and evaluation of object detection models

CRVL Lab KNU, Daegu - *ML Researcher* | **Sep 2019 - Aug 2021**
- Compressed object detection models for Jetson Nano, achieving 2x inference speed.
- Built a fisheye street-view dataset for autonomous driving
- Tuned detection models (YOLOv3, CenterNet) for wide-angle images and edge deployment.

YUJIN MECHATRONICS, Daegu - *Software Engineer* | **July 2018 - Nov 2018**
- Processed 3D depth sensor data for robot perception.
- Employed image filtering algorithms for object detection and localization.

PROJECT

Visual Object Group Tracking | **Jan - Apr 2024** | **3i Inc**
- Implemented the tracking integrated with Pivo Pod hardware to compute target locations.
- Designed a sorting algorithm to select suitable targets and group them into a unified bounding box.
- Built and trained a custom dataset focused on tracking sport players.

EDUCATION

Kyungpook National University, Daegu - *M.S Electronics Engineering* | **August 2021**

Kyungpook National University, Daegu - *B.S Electronics Engineering* | **August 2019**

Metropolia University of Applied Science, Helsinki - *Exchange program* | **Aug-Dec 2019**