



Chanyoung Jung

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Research Interest

On-device machine learning

My research interest lies at the intersection of on-device machine learning and 3D vision tasks such as 3D object detection. I am passionate about utilizing resources of resource-constrained devices like edge devices or mobile phones more efficiently to run complex tasks like 3D vision tasks. I have experiences about utilizing 3D object detection tasks efficiently on edge devices.

Education

YONSEI UNIVERSITY, Seoul, Republic of Korea Mar. 2024 – Present

M.S Candidate in Computer Science

Mobile Embedded Systems Lab., Advised by Prof. Hojung Cha

YONSEI UNIVERSITY, Seoul, Republic of Korea Mar. 2018 – Feb 2024

B.S in Computer Science, GPA: 4.24/4.50

Rank: 5/67

Experience

Undergraduate Research Assistant Dec. 2022 – Dec. 2023

Mobile Embedded System Lab, Advised by Prof. Hojung Cha

Projects

Development of On-device DNN Inference System with Real-Time Jul. 2024 – Present

Aware Elastic Resource Allocation

National Research Foundation of Korea (NRF), Ministry of Science and ICT, Republic of Korea

EyeSys: Adaptive Inference for Efficient 360-degree 3D Object Aug. 2023 – Dec. 2023

Detection on Edge Device

Software Capstone Design, Yonsei University

- Designed an efficient end-to-end 3D object detection system on Jetson device.
- Optimized the model with CUDA and several modules in proposed system.
- Improved the previous system as 25 FPS compared to the final target of 30 FPS.
- Won Popularity Award.

Omnidirectional 3D Object Detection on Edge Devices with Single 360- Feb. 2023 – Jun. 2023

degree Camera

Software Capstone Design, Yonsei University

- Designed an end-to-end system of real-time 3D Object Detection system on Jetson device.
- Achieved 57% performance(17FPS) compared to the final goal(30FPS).
- Won both the 1st place and Popularity Award.

Awards and Honors

- Academic Prize – Graduated with High Honors, Yonsei University Feb. 2024
- Grand Prize – Software Capstone Design, Yonsei University Jun. 2023
- Academic Prize – Honors, Yonsei University Feb. 2023
- Academic Prize – Honors, Yonsei University Aug. 2019
- Academic Prize – High Honors, Yonsei University Feb. 2019
- Academic Prize – Highest Honors, Yonsei University Aug. 2018

Skills

- **Programming Language:** Python, C/C++, Java
- **Languages:** Korean (Native), English (Intermediate), Japanese (Beginner)
- **Frameworks:** PyTorch, TensorRT, Android
- **Devices:** NVIDIA Jetson series (Orin, Xavier, Nano), Android