Chanyoung Jung

 github.com/lovelyzzkei ✉ cy.jung@yonsei.ac.kr

Research Interest

On-device machine learning

My research interest lies in on-device machine learning, especially on the heterogeneous mobile processor computing and 3D vision tasks such as 3D object detection. I am passionate about utilizing resources of resource-constrained devices like mobile phones or edge devices more efficiently and creatively to run complex but practical tasks like 3D vision tasks. I have experience in efficiently utilizing mobile processors for inferencing vision foundation models and 3D object detection models 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

Publications

ARIA: Optimizing Vision Foundation Model Inference on Heterogeneous Mobile Processors for Augmented Reality
Chanyoung Jung*, Jeho Lee*, Gunjoong Kim, Jiwon Kim, Seonghoon Park, and Hojung Cha (*Co-first authors)
The 23rd ACM Annual International Conference on Mobile Systems, Applications, and Services (MobiSys '25)
June 23-27, 2025. Anaheim, California, USA.

Panopticus: Omnidirectional 3D Object Detection on Resource-constrained Edge Devices
Jeho Lee, Chanyoung Jung, Jiwon Kim, and Hojung Cha
The 30th ACM Annual International Conference on Mobile Computing and Networking (MobiCom '24)
November 18-22, 2024. Washington, D.C., USA.

Projects

Development of On-device DNN Inference System with Real-Time Aware Elastic Resource Allocation　　　　　　　　　　　　　　　　　　　　Jul. 2024 – Present
National Research Foundation of Korea (NRF), Republic of Korea

**Development of On-device DNN Inference System for Real-time 3D
Perception with Mobile 360-degree Camera**   May. 2024 – Present

National Research Foundation of Korea (NRF), Republic of Korea

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:** QNN**,** TensorFlow Lite, Android, PyTorch, TensorRT

Teaching Experience

Operating System (CAS3101)   Spring, 2024
Teaching Assistant – Yonsei University, Seoul, Republic of Korea
5System Programming (CAS3107)   Fall, 2024
Teaching Assistant – Yonsei University, Seoul, Republic of Korea