

Kichang Yang

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RESEARCH INTEREST

I am deeply passionate about developing innovative systems, with a particular interest in **Mobile/Edge AI Acceleration** and **eXtended Reality (XR) Systems**. My expertise primarily lies in vision workloads, yet my enthusiasm extends to embracing and mastering new domains. I firmly believe in the power of collaboration to achieve groundbreaking advancements.

EDUCATION

2023 ~	Seoul National University Ph.D. Student in Computer Science & Engineering (<i>Advisor: Youngki Lee</i>)	Seoul, Republic of Korea
2021 ~ 2023	Seoul National University M.S. in Computer Science & Engineering (<i>Advisor: Youngki Lee</i>) <i>[Best thesis award in Computer Science & Engineering Dept.]</i>	Seoul, Republic of Korea
2015 ~ 2021	Seoul National University B.S. in Industrial Engineering Minor in Computer Science & Engineering <i>[Summa Cum Laude graduation]</i>	Seoul, Republic of Korea GPA 4.05/4.30

PUBLICATIONS

VLM in a flash: I/O-Efficient Sparsification of Vision-Language Model via Neuron Chunking
Kichang Yang, Seonjun Kim, Minjae Kim, Nairan Zhang, Chi Zhang, Youngki Lee
NeurIPS 2025

Logan: Loss-tolerant Video Analytics System
Kichang Yang, Minkyung Jeong, Juheon Yi, Jingyu Lee, KyungSoo Park, Youngki Lee
ACM MobiCom 2024

FlexPatch: Fast and Accurate Object Detection for On-device High-Resolution Live Video Analytics
Kichang Yang, Juheon Yi, Kyungjin Lee, Youngki Lee
IEEE INFOCOM 2022

WORK EXPERIENCE

Amazon, California, US Applied Scientist Intern • Efficient On-device Video Understanding with Large Vision Language Models	Jul. 2024 ~ Oct. 2024
SK Hynix, Gyeonggi-do, Republic of Korea Data Science Intern • Deep Learning based DRAM Module Visual Inspection Process. <i>[Best Project Award]</i>	Jun. 2019 ~ Aug. 2019
Educast, Seoul, Republic of Korea Product Manager Intern • Online course development (Linear Algebra for Machine Learning) & Marketing experiments.	Dec. 2018 ~ Feb. 2019
Korea National Police Agency Auxiliary Police Obligation Fulfilled	Feb. 2017 ~ Nov. 2018

OTHER PROJECTS

Orchestra: DNN Inference Framework for Heterogeneous Processors on Mobile SoC Jan. 2025 ~

- Designing and implementing an MLIR-based compilation framework for DNN inference on heterogeneous processors.
- Building an efficient runtime with zero-copy memory sharing for flexible operator assignment and task migration.

Design Guidelines for Continuous Vision AI (CVAI) Jun. 2021 ~ Dec. 2021

- Developed a taxonomy of pain points across CVAI pipelines (sensing, AI, interaction) and derived design guidelines.
- Organized a design workshop and built two Android prototypes (Text Recognizer, Smart Yoga Teacher), validated through expert review and user study.

Document search engine Mar. 2019 ~ Jun. 2019

Information Modeling Methods and Their Applications, SNU, Spring 2019

- Implemented traditional search engine optimization and improved the query parser by integrating Google search.

HONORS & AWARDS

- Research Scholarship (\$11,000), Brain Korea, 2023 ~ 2024
- Best poster award (1st place), SNU Computer Science & Engineering Dept. Research Fair, 2023
- Best poster (3rd place), SNU AIIS Retreat, 2022
- Summa Cum Laude Graduation, SNU, 2021
- Industry Scholarship (\$13,000), SK Hynix, 2019 ~ 2021
- National Science & Technology Scholarship (\$17,300), SNU, 2015 ~ 2021

TEACHING

Theories and Lab of VR/AR (M2177.007800), SNU	Spring, 2024
Computer Programming (M1522.000600), SNU	Fall, 2022
Computer Programming (M1522.000600), SNU [<i>Best course award in CSE Dept.</i>]	Fall, 2021
Mentoring program for underprivileged high school students (SNU Dream Consultant)	Summer, 2016
Mentoring program for underprivileged high school students (SNU Phronesis)	Summer, 2015

SKILLS

- Programming Language: C, C++, Python, Java
- Frameworks & Libraries: PyTorch, Transformers, FFmpeg, OpenCV, Android SDK
- Linguistics: Korean (native), English (fluent, [OPIC AL] [TEPS 543/600])

PROFESSIONAL SERVICES

External Reviewer

- IEEE/ACM Transactions on Networking, IEEE Internet of Things Journal

INVITED TALKS

“Edge-enabled High-resolution Video Analytics”

Naver, Megazone Cloud	Jul. 2022
Kakao Enterprise, CJ Logistics	Jun. 2022
A3 Foresight Workshop on Intelligent IoT for Empowering the People’s Lifestyle and Well-being	Nov. 2021