

# Jeimin Jeon

PhD student @ Computer Vision Lab, Yonsei University

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<https://jeiminjeon.github.io>

## RESEARCH INTERESTS

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### Machine Learning and Computer Vision

- Efficient Model (*e.g.*, NAS, Quantization, Pruning)
- Large Vision-Language Model
- Image Generation

## EDUCATION

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### Yonsei University

(Mar. 2022 – Present)

#### Ph.D. student

*Advisor*: Prof. Bumsub Ham

### Yonsei University

(Mar. 2016 – Feb. 2022)

**B.S.** in Electrical and Electronic Engineering

GPA: 4.01/4.3, *Graduated magna cum laude (Top 3%)*

## PUBLICATIONS

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1. **Jeimin Jeon**, Youngmin Oh, Junghyup Lee, Donghyeon Baek, Dohyung Kim, Chanho Eom, and Bumsub Ham, “Subnet-Aware Dynamic Supernet Training for Neural Architecture Search”, *IEEE Computer Vision and Pattern Recognition (CVPR)*, 2025.
2. Dohyung Kim, Junghyup Lee, **Jeimin Jeon**, Jaehyeon Moon, and Bumsub Ham, “Toward INT4 Fixed-Point Training via Exploring Quantization Error for Gradients”, *European Conference on Computer Vision (ECCV)*, 2024.

## PROJECTS

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### Development of Edge AI Semiconductor IP

(Aug. 2023 – Present)

Ministry of SMEs and Startups (MSS)

- Developed quantization and pruning algorithms for In-Memory Computing (IMC) chips.
- Collaborated with hardware teams for efficient HW-SW co-design.
- Built deep learning models for circuit performance prediction and optimization.

### Development of Fundamental Technology and Integrated Solution for Next-Generation Automatic Artificial Intelligence System

(Apr. 2022 – Jul. 2023)

Institute for Information & Communications Technology Promotion (IITP)

- Developed neural architecture search (NAS) algorithms for CNNs, ViTs, and quantized models.
- Designed Automatic Loss Function Search algorithms for adaptive optimization.
- Implemented low-bit training techniques for efficient deep learning model training.

## PATENTS

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### International

- DYNAMIC SUPERNET LEARNING APPARATUS AND METHOD FOR NEURAL ARCHITECTURE SEARCH  
US18799660, Aug. 2024 (Application)

### Domestic

- Dynamic Supernet Learning Apparatus and Method for Neural Architecture Search  
10-2024-0100942, Jul. 2024 (Application)
- Quantization-Aware Training Apparatus and Method  
10-2023-0049837, Apr. 2023 (Application)

EXPERIENCES

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- **Peer-review Activity**

CVPR	2024,2025
ECCV	2024
ICCV	2025

- **Teaching Assistant**

Deep Learning Lab (EEE4423): 2022-1, 2024-1, 2025-1  
Digital Image Processing (EEE5320): 2023-2  
Electrical and Electronic Engineering 101 (EEE2113): 2023-1  
SW Programming (YCS-1002): 2021-1