Jeimin **Jeon**

PH.D. STUDENT · COMPUTER VISION LAB, YONSEI UNIVERSITY

Yonsei University, 50 Yonsei-ro, Seodaemun-gu, Seoul, 03722, Republic of Korea

✉ jeimin@yonsei.ac.kr | ⌂ jeiminjeon.github.io

Education

Yonsei University   *Seoul, South Korea*

PH.D. IN ELECTRICAL AND ELECTRONIC ENGINEERING (ADVISOR: PROF. BUMSUB HAM)   *Mar. 2022 - Present*

Yonsei University   *Seoul, South Korea*

B.S. IN ELECTRICAL AND ELECTRONIC ENGINEERING (MAGNA CUM LAUDE, TOP 3%)   *Mar. 2016 - Feb. 2022*
- GPA: 4.01 / 4.3

Publications

∗: equal contribution

Relational Feature Caching for Accelerating Diffusion Transformers   *2026*

Byunggwan Son∗, <ins>**Jeimin Jeon**</ins>∗, Jeongwoo Choi∗, and Bumsub Ham

International Conference on Learning Representations **(ICLR)**

GrowTAS: Progressive Expansion from Small to Large Subnets for Efficient ViT Architecture Search   *2026*

Hyunju Lee, Youngmin Oh, <ins>**Jeimin Jeon**</ins>, Donghyeon Baek, and Bumsub Ham

IEEE/CVF Winter Conference on Applications of Computer Vision **(WACV)**

AccuQuant: Simulating Multiple Denoising Steps for Quantizing Diffusion Models   *2025*

Seunghoon Lee, Jeongwoo Choi, Byunggwan Son, Jaehyeon Moon, <ins>**Jeimin Jeon**</ins>, Bumsub Ham

Conference on Neural Information Processing Systems **(NeurIPS)**

Token-Based Dynamic Bit-Width Assignment for ViT Quantization   *2025*

Dohyung Kim∗, Jaehyeon Moon∗, Junghyup Lee, Geon Lee, <ins>**Jeimin Jeon**</ins>, Bumsub Ham

Pattern Recognition **(PR)**

Scheduling Weight Transitions for Quantization-Aware Training   *2025*

Junghyup Lee∗, <ins>**Jeimin Jeon**</ins>∗, Dohyung Kim, and Bumsub Ham

IEEE International Conference on Computer Vision **(ICCV)**

Subnet-Aware Dynamic Supernet Training for Neural Architecture Search   *2025*

<ins>**Jeimin Jeon**</ins>, Youngmin Oh, Junghyup Lee, Donghyeon Baek, Dohyung Kim, Chanho Eom, and Bumsub Ham

IEEE Computer Vision and Pattern Recognition **(CVPR)**

Toward INT4 Fixed-Point Training via Exploring Quantization Error for Gradients   *2024*

Dohyung Kim, Junghyup Lee, <ins>**Jeimin Jeon**</ins>, Jaehyeon Moon, and Bumsub Ham

European Conference on Computer Vision **(ECCV)**

Transformer Architecture Search with Mixture-of-LoRA Experts   *2025*

First Author

Under Review

Projects

Edge artificial intelligence semiconductor IP development

Korea Technology & Information Promotion Agency for SMEs (TIPA) *Aug. 2023 - Present*

- 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 AI System

Institute for Information & Communications Technology Promotion (IITP) *Apr. 2022 - Jul. 2023*

- Developed NAS algorithms for CNNs, ViTs, and quantized models.
- Designed Automatic Loss Function Search algorithms for adaptive optimization.
- Implemented low-bit training techniques for efficient model training.

Patents

International

Aug. 2024 **Application,** Dynamic Supernet Learning Apparatus and Method for Neural Architecture Search *US18799660*

Domestic

Oct. 2024 **Application,** Apparatus and Method for Quantizing Tokens of Vision Transformers *10-2024-0137421*

Jul. 2024 **Application,** Dynamic Supernet Learning Apparatus and Method for Neural Architecture Search *10-2024-0100942*

Sep. 2023 **Application,** Quantization Apparatus and Method for Artificial Neural Network *10-2023-0116857*

Apr. 2023 **Application,** Quantization-Aware Training Apparatus and Method *10-2023-0049837*

Service & Experiences

Peer-review IJCV, CVPR (2024, 2025, 2026), NeurIPS (2025), ECCV (2024)

Teaching Deep Learning Lab, Digital Image Processing, Electrical Engineering 101, SW Programming