

# Jaehyeon Moon

Yonsei University

Combined M.S. & Ph.D. student

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**Email**

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**Website**

<https://jaehyeonmoon.github.io/>

**Location**

50, Yonsei-ro, Seodaemun-gu, Seoul, Korea, 03722

## Research Interests

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- Deep learning models
- Network compression

## Education

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Mar. 2020 – **Yonsei University**  
Present *School of Electrical and Electronic Engineering*  
*Seoul, Korea*  
Advisor: Bumsub Ham  
Combined M.S. & Ph.D. student

Mar. 2016 – **Yonsei University**  
Feb. 2020 *School of Electrical and Electronic Engineering*  
*Seoul, Korea*  
B.S. in Electrical and Electronic Engineering  
GPA: 4.06 / 4.30 (Magna Cum Laude)

## Publications

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- **Jaehyeon Moon** and Bumsub Ham, "Shift-and-Sum Quantization for Visual Autoregressive Models", ICLR, 2026.
- Dohyung Kim\*, **Jaehyeon Moon**\*, Junghyup Lee, Geon Lee, Jeimin Jeon, and Bumsub Ham, "Token-Based Dynamic Bit-Width Assignment for ViT Quantization", Pattern Recognition, 2026. \*Equal contribution.
- **Jaehyeon Moon**, Dohyung Kim, Junyong Cheon, and Bumsub Ham, "Instance-Aware Group Quantization for Vision Transformers", CVPR, 2024.
- Seunghoon Lee\*, Jeongwoo Choi\*, Byungwan Son, **Jaehyeon Moon**, Jeimin Jeon, and Bumsub Ham, "AccuQuant: Simulating Multiple Denoising steps for Quantizing Diffusion Models", NeurIPS, 2025. \*Equal contribution.
- Dohyung Kim, Junghyup Lee, Jeimin Jeon, **Jaehyeon Moon**, and Bumsub Ham, "Toward INT4 Fixed-Point Training via Exploring Quantization Error for Gradients", ECCV, 2024.

## Experiences

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Aug. 2023 – Present      **TIPS project**  
*Research engineer, Articon*

Developed pruning and quantization algorithms to deploy deep neural networks on compute-in-memory (CIM) chips under the TIPS startup R&D program

## Patents

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- Bumsub Ham, **Jaehyeon Moon**, Dohyung Kim, and Junyong Cheon, "Quantization Apparatus and Method for Artificial Neural Networks and Image Processing Device Having the Same", US-Application, 18/456,020
- Bumsub Ham, **Jaehyeon Moon**, "Quantization Method and Apparatus for Visual Autoregressive Model", KR-Application No. 10-2026-0032167
- Bumsub Ham, Dohyung Kim, Junghyup Lee, **Jaehyeon Moon**, Geon Lee, and Jeimin Jeon, "Token-Based Quantization Apparatus and Method for Vision Transformers", KR-Application No. 10-2024-0137421
- Bumsub Ham, Dohyung Kim, Junghyup Lee, Jeimin Jeon, and **Jaehyeon Moon**, "Quantization Apparatus and Method for Artificial Neural Networks", KR-Application No. 10-2023-0116857
- Bumsub Ham, **Jaehyeon Moon**, Dohyung Kim, and Junyong Cheon, "Quantization Apparatus and Method for Artificial Neural Networks and Image Processing Device Having the Same", KR-Application No. 10-2023-0072090

## Awards & Scholarships

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- National Science & Technology Scholarships, Ministry of Science and ICT, Republic of Korea (Sep. 2018 – Feb. 2020)