# **Donghwan Chi**

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• Conducted project about Graph

in Donghwan Chi 🛛 🔿 zheedong

#### Interests \_\_\_\_\_

AGI, Multimodal Large Language Model, Generative Model, Reinforcement Learning, Efficient AI

#### Education \_\_\_\_\_

<ul> <li>MS Korea University, Artificial Intelligence</li> <li>GPA: 4.5/4.5 (4.0/4.0)</li> <li>Coursework: Advanced Machine Learning, Meta Learning</li> </ul>	March 2025 - Now
<ul> <li>BS Korea University, Computer Science and Engineering <ul> <li>GPA: 4.11/4.5 (3.8/4.0)</li> <li>Coursework: Artificial Intelligence, Machine Learning, Deep Learning, Introduction to Computer Vision its Application, Natural Language Processing, Information Theory and Inference Learning, Introduction to Convex Optimization</li> <li>Leave of absence between Jan. 2021 - Jan. 2023</li> </ul></li></ul>	March 2019 - Feb. 2025
Publications	
<ul> <li>Slot-MLLM: Object-Centric Visual Tokenization for Multimodal LLM</li> <li>Donghwan Chi*, Hyomin Kim*, Yoonjin Oh, Yongjin Kim, Donghoon Lee, Daejin Jo, Jongmin Kim, Junyeob Baek, Sungjin Ahn, Sungwoong Kim</li> <li>Object-centric slot visual tokens via Slot Q-Former, enhancing MLLMs' capabilities in object-centric visual understanding, generation, and editing tasks.</li> <li>Object-centric Self-improving Preference Optimization for Text-to-Image Generation Yoonjin Oh, Yongjin Kim, Hyomin Kim, Donghwan Chi, Sungwoong Kim</li> <li>OSPO framework to address object-level hallucinations in text-to-image generation.</li> </ul>	May 2025 May 2025
<ul> <li>AGI Lab, Korea University</li> <li>Undergraduate Intern (Adviser: Professor Sungwoong Kim &amp; Sungbin Lim)</li> <li>Wrote paper about Multimodal Large Language Model, and led project team.</li> <li>Join as initial member, setup server and serve as server administrator</li> </ul>	Seoul, South Korea Sept. 2023 Now
<ul> <li>Machine Learning &amp; Vision Lab, Korea University</li> <li>Undergraduate Intern (Adviser: Professor Hyunwoo Kim)</li> <li>Participated in study about Graph, AGI</li> </ul>	Seoul, South Korea Sept. 2022 - Aug. 2023 1 year

#### Projects \_\_\_\_\_

<ul> <li>Family Portrait: Reimagining Family Memories through Multi-ID Synthesis</li> <li>Created a model that synthesizes multiple faces into a single image, resembling a family portrait.</li> <li>Led the development of the generative model using latent diffusion techniques.</li> <li>Built a functional demo system for users to upload images and receive synthesized outputs.</li> </ul>	Dec. 2024
Canary: Military Security Alert System for Everyone	Oct. 2021
<ul> <li>Developed a system to identify military security objects in images taken by users through camera detection.</li> </ul>	
• Managed and curated the dataset for training and testing the object detection model.	
Extracurricular Activities	
<ul> <li>Artificial Intelligence Korea University (AIKU),</li> <li>1st Senior Member, Technical &amp; Academic Management Team</li> <li>Managed the club's servers, ensuring reliable and efficient operation.</li> <li>Served as a committee member for multiple hackathon question designs.</li> <li>Conducted and participated in a project related to diffusion models.</li> </ul>	Seoul, South Korea Jan. 2023 - Jan. 2024 1 year
<ul> <li>Organized and taught introductory courses for new members.</li> </ul>	
<ul> <li>Korea University Institute of Computer Security</li> <li>Regular Member</li> <li>Participated in basic system hacking study</li> </ul>	Seoul, South Korea March 2019 - Feb. 2020 1 year

### Honors and Awards \_\_\_\_\_

- Chief of Naval Operations Republic of Korea Navy Award, Open Source Academy Military (OSAM) Hackathon, 2021
- Semester High Honors, Korea University, 2019, 2020, 2023, 2024
- Special Scholarship by Student Affairs Office, Korea University, Fall 2023, Spring 2024
- Academic Excellence Scholarship, Korea University, Spring 2024
- Excellence Award, Capstone Design Competition, Korea University, Fall 2024

# Technologies \_\_\_\_\_

Languages: Python, PyTorch, PyTorch Lightning

Engineering: Distributed Learning, Large Scale Training

## Language Proficiency \_\_\_\_\_

**TOEIC:** 905