# Minhyuk Seo

Research Interest: Continual Learning, Embodied AI, Federated Learning, and Multi-Modal Learning

e-mail: minhyukseo@yonsei.ac.kr/ webpage: https://dbd05088.github.io/

#### **EDUCATION**

MS in Computer Science, Yonsei University, Seoul, Korea

Mar 2023 — Aug 2024 (Early graduation)

Advisor: Jonghyun Choi

GPA: 4.3 / 4.3

BS in Computer Science, Yonsei University, Seoul, Korea

Mar 2017 — Feb 2023

2 years of absence due to obligatory military service (2018 - 2020)

GPA: 4.16 / 4.3 - Graduate ranking: 2 / 92

Daejeon Dongsin Science High School, Dajeon, Korea

Mar 2014 — Feb 2017

RESEARCH

KU Leuven, Leuven, Belgium

Mar 2025 — Present

Visiting Researcher

Supervisor: Tinne Tuytelaars

Seoul National University, Seoul, Korea

Sep 2024 — Fed 2025

Researcher @ SNU Machine Perception and Reasoning Lab

• Supervisor: Jonghyun Choi

LG AI Research, Seoul, Korea

Feb 2023 — Aug 2023

Research Intern @ Advanced Machine Learnig Lab

Mentor: Hankook Lee

Yonsei University, Seoul, Yonsei University, Korea

Feb 2022 — Jan 2023

Feb 2021 — Jan 2022

Research Undergraduate Intern @ Vision and Learning Lab

Supervisor: Jonghyun Choi

Yonsei University, Seoul, Yonsei University, Korea

Research Undergraduate Intern @ Mobile and Embedded System Lab

Supervisor: Hojung Cha

#### **PUBLICATIONS**

- 1. **Minhyuk Seo**, Taeheon Kim, Hankook Jonghyun Choi, Tinne Tuytelaars. HEFT: Multi-modal Personalized Federated Continual Learning for Heterogeneous Clients. **CVPRW 2025 @ MMFM3** (Work in Progress).
- 2. **Minhyuk Seo\***, Hyunseo Koh\*, and Jonghyun Choi. Budgeted Online Continual Learning by Adaptive Layer Freezing and Frequency-based Sampling. **ICLR 2025 (Spotlight)**.
- 3. **Minhyuk Seo**, Seongwon Cho, Minjae Lee, Diganta Misra, Hyeonbeom Choi, Seon Joo Kim, Jonghyun Choi. Just Say the Name: Online Continual Learning with Category Names Only via Data Generation. **arXiv** (Under Review).
- 4. **Minhyuk Seo**, Hyunseo Koh, Wonje Jeung, Minjae Lee, San Kim, Hankook Lee, Sungjun Cho, Sungik Choi, Hyunwoo Kim and Jonghyun Choi. Learning Equi-angular Representations for Online Continual Learning. **CVPR 2024**.
- 5. Byeonghwi Kim\*, Minhyuk Seo\*, and Jonghyun Choi. Online Continual Learning for Interactive Instruction Following Agents. ICLR 2024.
- 6. Hyunseo Koh, **Minhyuk Seo**, Jihwan Bang, Hwanjun Song, Deokki Hong, Seulki Park, Jung-Woo Ha, and Jonghyun Choi. Online Boundary-free Continual Learning by Scheduled Data Prior. **ICLR 2023**.

(\* Indicates equal contribution)

#### **AWARDS & HONORS**

Outstanding Research Paper Award in Graduate School, Yonsei University	July 2024
2nd Place Award, CVPR 2024 Continual Learning Challenge	May 2024
Bronze Prize, IPIU 2024 Outstanding Paper Awards	Feb 2024
1st Place Award, ICCV 2023 Visual Continual Learning Challenge	Oct 2023
Best Capstone Design Award in Dept. of Computer Science, Yonsei University	Dec 2022
1st place in the HANIUM ICT competition, Minister of Science, ICT and Future Planning Award	Feb 2019
Multiple Honors & Scholarships from Yonsei University	2017 - 2023

SCHOLARSHIPS SCHOLARSHIPS		2011 2023
2023	Kwanjeong Educational Foundation Scholarship for Graduate Student Full tuition and living expenses during undergraduate years - \$9,000 / semester	Mar 2023 — Aug 2024
2023	<b>Yonsei Bachelor &amp; Master Program Scholarship</b> (Select two students from the department each year) Full tuition during undergraduate years - \$5,000 / semester	Mar 2023 — Aug 2024
2021	Kwanjeong Educational Foundation Scholarship for Bachelor's program Full tuition and living expenses during undergraduate years - \$9,000 / semester	Mar 2021 — Feb 2023
2021	Sejong Human resources and Lifelong Education Development Foundation Living expenses - \$1,500	Jul 2021 — Dec 2021

# **TALKS**

Naver Labs, Seongnam, Republic of Korea Sep 2024

· Recent Research on Continual Learning

# Apple Research, Seattle, USA

Jun 2024

Practical Set-ups and Methods for Continual Learning

# **TEACHING EXPERIENCE**

#### Yonsei University, Seoul, Korea

- TA of Software Comprehensive Design (Spring 2023)
- TA of Software Comprehensive Design (Fall 2023)

# Seoul National University, Seoul, Korea

• TA of Random Variables and Random Processes (Spring 2024)

# **TECHNICAL SKILLS**

AdvancedPython, Java3 yearsIntermediateC++, R1 yearBasicMATLAB, HTML, CSS, JS6 monthsFrameworksPyTorch2 years

# **ACADEMIC SERVICE**

#### Reviewers of

CVPR (2024-2025), ICML (2024-2025), ICLR (2024-2025), AISTATS (2025), ICRA (2025), TPAMI (2024-2025), NeurIPS (2024-2025), NeurIPS Benchmark Track (2024), ICCV (2025), CoRL @ LLHomeRobots2024

# MILITARY SERVICE