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 (Ranked **2nd** in Dept. of Computer Science)

Daejeon Dongsin Science High School, Dajeon, Korea — Mar 2014 — Feb 2017

Research

KU Leuven, Leuven, Belgium — Fed 2025 (Expected) — Aug 2025 (Expected)
Visiting Researcher

- Supervisor: Tinne Tuytelaars

Seoul National University, Seoul, Korea — Sep 2024 — Jan 2024 (Expected)
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
Research Undergraduate Intern @ Vision and Learning Lab

- Supervisor: Jonghyun Choi

Yonsei University, Seoul, Yonsei University, Korea — Feb 2021 — Jan 2022
Research Undergraduate Intern @ Mobile and Embedded System Lab

- Supervisor: Hojung Cha

Publications

1. **Minhyuk Seo***, Hyunseo Koh*, and Jonghyun Choi. Budgeted Online Continual Learning by Adaptive Layer Freezing and Frequency-based Sampling. **arXiv** *(Under Review).*
2. **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).*
3. **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**.
4. **Minhyuk Seo***, Byeonghwi Kim* and Jonghyun Choi. Online Continual Learning for Interactive Instruction Following Agents. **ICLR 2024**.
5. 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
2st Place Award, CVPR 2024 Workshop on Continual Learning in Computer Vision — May 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

2023 **Kwanjeong Educational Foundation Scholarship for Graduate Student** — Mar 2023 — Aug 2024
Full tuition and living expenses during undergraduate years - 6 million won / semester

2023 **Yonsei Bachelor & Master Program Scholarship** (Select two students from the department each year) — Mar 2023 — Aug 2024
Full tuition during undergraduate years - 6.5 million won / semester

2021 **Kwanjeong Educational Foundation Scholarship for Bachelor's program** — Mar 2021 — Feb 2023
Full tuition and living expenses during undergraduate years - 5.5 million won / semester

2021 **Sejong Human resources and Lifelong Education Development Foundation** — Jul 2021 — Dec 2021
2 million won

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

Advanced	Python, Java	3 years
Intermediate	C++, R	1 year
Basic	MATLAB, HTML, CSS, JS	6 months
Frameworks	PyTorch	2 years

Academic Service

Reviewers of
- CVPR, ICLR, AISTATS, TPAMI, NeurIPS, CoRL @ LLHomeRobots2024, NeurIPS Benchmark Track — 2024

Military Service

Repulic of Korea Army 20^{th}, Yangpyeong, Korea — Mar 2018 - Nov 2019