

# SeungBum Ha

Ph.D student

UNIST, Ulsan National Institute of Science and Technology

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<https://github.com/Seung-B>

## EDUCATION

Mar. 2019 ~ Aug. 2022	<b>Ulsan National Institute of Science and Technology</b> Department of Industrial Engineering <i>Advisor: Sunghoon Lim</i> <i>B.S. in Industrial Engineering</i> GPA: 3.7 / 4.3 <i>Cum Laude</i>	Ulsan, Korea
Aug. 2022 ~ Aug. 2024	<b>Ulsan National Institute of Science and Technology</b> Graduate School of Artificial Intelligence <i>Advisor: Sung Whan Yoon</i> <i>M.S. in Artificial Intelligence</i>	Ulsan, Korea
Sep. 2024 ~ Present	<b>Ulsan National Institute of Science and Technology</b> Graduate School of Artificial Intelligence <i>Advisor: Sung Whan Yoon</i> <i>Ph.D. Student</i> GPA: 3.88 / 4.3	Ulsan, Korea

## RESEARCH INTERESTS

- Deep learning
- Federated learning
- Trustworthy AI
- Machine Unlearning
- Large Model Safety

## PUBLICATIONS

1. Jin Hyuk Lim\*,**SeungBum Ha**\*,Sung Whan Yoon, "MetaVers: Meta-Learned Versatile Representations for Personalized Federated Learning", *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision*, (2024)
2. **SeungBum Ha**\*,Taehwan Lee\*,Jiyoun Lim,Sung Whan Yoon, "Benchmarking federated learning for semantic datasets: Federated scene graph generation", *Pattern Recognition Letters* 197, 195-

201, (2025)

3. **SeungBum Ha**, Saerom Park, "Unlearning's Blind Spots: Over-Unlearning and Prototypical Relearning Attack", *arXiv preprint.(Under Review)*, (2025)

## PATENTS

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1. Sung Whan Yoon, Jinhyuk Lim, **SeungBum Ha**, "Meta-learning algorithms for personalized federated learning", KR-Application No. 10-2023-0037350

## AWARDS AND HONORS

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- The 1st KUIAI Hackathon, Excellence Award (2nd), Korea University, Korea (Jan. 2021)
- Data Science Contest, Encouragement prize, UNIST, KAIST, POSTECH, Korea (Jan. 2022)
- Undergraduate Full Scholarship, Ulsan National Institute of Science and Technology, Korea (Feb. 2019 ~ Aug. 2022)
- Graduate Full Scholarship, Ulsan National Institute of Science and Technology, Korea (Aug. 2022)

## ACADEMIC SERVICES

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- Served as Reviewer
  - The Thirteenth International Conference on Learning Representations (ICLR 2025)
  - The Fourteenth International Conference on Learning Representations (ICLR 2026)
  - The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2026 (CVPR 2026)
  - The Eighteenth European Conference on Computer Vision (ECCV 2026)

## PROJECTS

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- Optimization of AI-based fusion manufacturing process conditions and prediction of defects, Seoyeon E-hwa / Inter-X, Korea (Jun. 2020 ~ Feb. 2021)
- Energy Consumption Analysis for Additive Manufacturing, Ulsan National Institute of Science and Technology UDMML Lab, Korea (Jul. 2020 ~ Jul. 2021)
- Manufacturing Bigdata Analysis based Smart Factory and advanced project - anomaly detection based on manufacturing process data, Hankuk Mold, Korea (Nov. 2020 ~ Feb. 2021)
- Predicting stock price volatility in the U.S. Market based on news using FinBERT, AICP Program, Ulsan National Institute of Science and Technology, Korea (Mar. 2021 ~ Dec. 2021)
- Development of feasibility verification technology for resource hidden deep learning model, ETRI(Electronics and Telecommunication Research Institute, Korea (Apr. 2023 ~ Nov. 2023)
- Building experimental environments based on multi-inference performance based federated learning asynchronous consensus, ETRI(Electronics and Telecommunication Research Institute, Korea (Jun. 2023 ~ Nov. 2023)
- Hierarchical federated learning simulations and clients contribution measurement, ETRI(Electronics and Telecommunication Research Institute, Korea (Jun. 2024 ~ Nov. 2024)

## TEACHING EXPERIENCES

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- Teaching Assistant, AI Novatus Academia Curriculum in Gyeongsangnam-do (Sep. 2022 ~ Feb. 2023)

- Teaching Assistant, Advanced Topics in Industrial Engineering - Introduction to AI Safety (UNIST, IE47001, Mar. 2024 ~ Jun. 2024)
- Teaching Assistant, Distributed Learning (UNIST, AI51501, Sep. 2024 ~ Dec. 2024)

## RESEARCH EXPERIENCES

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- Research Intern at Unstructured Data Mining and Machine Learning Lab, Ulsan National Institute of Science and Technology, Korea (May. 2020 ~ Dec. 2021)
- Research Intern at Homomorphic Encryption Lab, Ulsan National Institute of Science and Technology, Korea (Dec. 2021 ~ Jul. 2022)
- Research Student at Machine Intelligence and Information Learning Lab, Ulsan National Institute of Science and Technology, Korea (Aug. 2022 ~ Present)