Daeun Jung

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REASEARCH INTERESTS

Federated Learning, Interpretable Machine Learning, and Machine Unlearning, with an emphasis on:

- Decision-oriented and descriptive representations for federated systems, supporting reliable analysis and intervention under data imbalance and heterogeneity.
- Adaptive and unlearning-aware algorithms that respond to data distribution shifts, outdated information, and changing client populations in federated environments.

EDUCATION

University of Maryland, College Park, MD, USA — Aug. 2022– *present*
Ph.D. Student, Department of Computer Science (GPA 3.68/4.30)

- Advisor: Ang Li

Ewha Womans University, Seoul, South Korea — Mar. 2019–Aug. 2021
M.S., Department of Electronic and Electrical Engineering

- Thesis: Meta Description Transform for Network Data Analytics
  - Advisor: Hyunggon Park
  - Laboratory: Multiagent Communications and Networking Lab (MCNL)

Ewha Womans University, Seoul, South Korea — Mar. 2014–Feb. 2019
B.S. in Engineering, Department of Electronics Engineering

PUBLICATIONS

Conference

1. Ziyao Wang*, **Daeun Jung***, Yexiao He, Guoheng Sun, Zheyu Shen, Myungjin Lee, Ang Li, **FedMOA: Federated GRPO for Personalized Reasoning LLMs under Heterogeneous Rewards**, *Forty-Third International Conference on Machine Learning (ICML)*, Feb. 02, 2026. (Under-reviewed) [pdf]

2. Joohong Rheey*, **Daeun Jung** and Hyunggon Park, **Impact of Input Data Randomness on Training Performance of Autoencoder**, *The Korean Institute of Communications and Information Sciences (KICS) Summer conference*, Jun. 16, 2021. (Best Paper Awards)

3. Jungmin Kwon*, **Daeun Jung*** and Hyunggon Park, **Traffic Data Classification using Machine Learning Algorithms in SDN Networks**, *Conference on ICT Convergence (ICTC)*, Dec. 21, 2020. (Peer-reviewed) [pdf]

4. **Daeun Jung*** and Hyunggon Park, **An Iterative Algorithm of Key Feature Selection for Multi-class Classification**, *International Conference on Ubiquitous and Future Networks (ICUFN)*, Aug. 22, 2019. (Peer-reviewed) [pdf]

Journal

1. Sunwoo Cho, **Daeun Jung**, Soohwan Lee, Myung-Ki Shin and Hyunggon Park, **Survey on Machine Learning Algorithms for SDN/NFV Automation**, *The Journal of Korea Information and Communications Society*, Jan. 31, 2019. (Submitted)

PROJECTS

Development of Distributed/Cooperated 5G+ Network Data Analytics Functions and Control Technology (Full-Time Researcher)
Ewha Womans University, Seoul, South Korea Apr. 2021–2022

- Developing an automatic feature extractor of time-series data using partial data distribution change.
- Analyzing the general data attributes extraction by separating raw data into noise and essential parts.
- Language/tool: Python (PyTorch)

Supervised Agile Machine Learning Techniques for Network Automation based on Network Data Analytic Function (Full-Time Researcher)
Ewha Womans University, Seoul, South Korea Apr. 2019–Dec. 2021

- Collected data via network application and representation development based on network protocol characteristics.
- Improved the accuracy of anomaly detection classification by applying phenotypes to CIDDS open data.
- Language/tool: Python (PyTorch), ONOS, Wireshark

Language-Conditioning Processing System based on Connectionism Model Machine Learning for Age-Related Language Impairment Prediction (Full-Time Researcher)
Ewha Womans University, Seoul, South Korea Jul. 2019–Dec. 2020

- Implemented the mathematical modeling of linear regression-based mild-cognitive evaluation tests using a language-conditioned processing system.
- Developed item reduction algorithms for the validity of mild-cognitive evaluation tests by comparing item combinations.
- Language/tool: Python, R

EXPERIENCE

Visiting Scholar
Carnegie Mellon University, Pittsburgh, PA, USA Jan. 2020 – Jul. 2020

- Intensive AI Program fully funded by the Korean government ($43,435)
  - Processed large-scale multimedia data to generate faseswap based on GAN using AWS
  - Developed a general model for a chatbot based on natural language processing.
  - Language/tool: Python(PyTorch), AWS(EC2), JavaScript

Full-Time Research Intern
Ewha Womans University, Seoul, South Korea

- Multiagent Communications and Networking Lab Jun. 2018–Feb. 2019
  - Advisor: Hyunggon Park
  - Surveyed the SDN/NFV network architecture and machine learning applications for 5G topology.
  - Extracted key genes through dimensional reduction using clinical breast cancer data.
  - Language/tool: Python, MATLAB, R
- Analog Circuits and Systems Lab Dec. 2017–Feb. 2018
  - Advisor: Sungmin Park
  - Studied electronic circuits used in Lidar and CMOS amplifier for Gigabit Ethernet.

Teaching Assistant
University of Maryland, MD, USA 2022–present

- Advanced Data Structures(CMSC 420), Discrete Structures(CMSC 250), Introduction to Data Science(CMSC 320)
- Conducted discussion session to promote the understanding to implement the algorithm.
- Language/tool: Python, Java

Ewha Womans University, Seoul, South Korea 2019–2020

- Communications Laboratory (35327-01), Embedded System Design and Laboratory (36517-01)

- Conducted after-class lectures to demonstrate the programming assignments' overall algorithms.
- Language/tool: MIPS, C/C++, MATLAB

PATENTS

Daeun Jung and Hyunggon Park, *META DESCRIPTION CONVERSION METHOD FOR NETWORK DATA ANALYSIS AND NETWORK ANALYSIS APPARATUS USING THE SAME*
Korean Intellectual Property Office , filed on Oct, 21, 2021, and issued Jul. 25, 2023(10-2561335).
Daeun Jung and Hyunggon Park, and Jee Eun Sung, *METHOD AND APPARATUS FOR EVALUATION QUESTIONS DETERMINATION*
Korean Intellectual Property Office , filed on Jan, 19, 2022, and issued Jul. 26, 2023(10-2607425).

HONORS & AWARDS

Best Paper Awards | The Korean Institute of Communications and Information Sciences (KICS) 2021
Research Assistant Scholarship | Ewha Womans University 2020
Admissions Scholarship | Ewha Womans University 2019
DEAN'S List | Ewha Womans University 2015, Fall 2017, Spring 2018
National Grant Scholarship | Ewha Womans University 2015–2018

SKILLS

Python(PyTorch, PyTorch Lightning); Java, C/C++; MATLAB; R; AWS(EC2); LaTeX
Korean(Native), English(Advanced)

Last update: February 12, 2026