

RESEARCH INTERESTS

AI for Healthcare, Applied Machine Learning, Precision Medicine

EDUCATION

University of Southern California Master of Science, Computer Science	Aug 2025 – Present Los Angeles, California
Sogang University Bachelor of Science in Engineering, Computer Science and Engineering Bachelor of Science, Life Science (Double Major) Honors: <i>Magna Cum Laude</i> Major GPA: 3.87/4.3 (96.3/100), Cumulative GPA: 3.81/4.3 (95.8/100)	Mar 2017 – Feb 2024 Seoul, Korea
Case Western Reserve University Exchange Program	Aug 2022 – Dec 2022 Cleveland, Ohio

PUBLICATIONS

Journal / Conference Publications Yi, G.* , Ju, J.*, & Jo, K. [#] Few-Shot Learning for Multi-Omics Disease Classification with a MAML-Based Model. <i>KIPS Transactions on Software and Data Engineering (KTSDE)</i> , in press * indicates co-first authorship, [#] indicates corresponding author.	2025
Oral Presentations Few-Shot Learning for Multi-Omics Disease Classification with a MAML-Based Model. <i>9th International Conference on Medical and Health Informatics (ICMHI)</i> , Kyoto, Japan	2025

RESEARCH EXPERIENCES

Bioinformatics & Machine Learning Lab , Chungbuk National University <i>Research Intern</i> Advisor: Prof. Kyuri Jo Developed a Model-Agnostic Meta-Learning (MAML) few-shot learning model, pre-trained on The Cancer Genome Atlas (TCGA) to predict underrepresented diseases using Gene Expression Omnibus (GEO) data selected via Dis-GeNET Jaccard similarity. Applied Differential Gene Expression (DGE) analysis for biomarker discovery and integrated Reactome pathways as hidden layers, using Layer Integrated Gradients to enhance model interpretability and identify key pathways.	Aug 2024 – Present Cheongju, Korea
Research Project , Sogang University <i>Undergraduate Researcher</i> Advisor: Prof. Jungmin So Title: "Spectrum Sensing-Enhanced Federated Multi-Armed Bandit for Cognitive Radio" Developed an enhanced Federated Multi-Armed Bandit (FMAB) algorithm for cognitive radio, improving spectrum access, reducing regret, and minimizing exploration costs through spectrum sensing. Simulations demonstrated that client cooperation in the enhanced algorithm reduced communication costs and enabled more efficient decision-making compared to independent client models.	Mar 2023 – Jun 2023 Seoul, Korea

TECHNICAL EXPERIENCES

Google for Developers Machine Learning Bootcamp , Google Korea <i>Selected Participant</i> Completed a 14-week program combining Andrew Ng's Deep Learning Specialization with practical applications, including Kaggle competitions and a collaborative project, "Flight Schedule Optimization for Passengers", using Gemma open models.	Jul 2024 – Oct 2024 Seoul, Korea
Likelion Sogang , Likelion <i>Front-end Developer</i> Developed responsive and scalable user interfaces using React, HTML/CSS, and JavaScript for URL repository service, enhancing user experience by implementing URL saving, sharing, and keyword search functionality	Mar 2021 – Dec 2021 Seoul, Korea

through hashtags and titles, streamlining collaboration and information retrieval.

27th Infantry Division, Republic of Korea Army (ROKA)
Combat Medic Sergeant
Led a squad during training missions, attained Special Warrior recognition, and provided medical support by assisting doctors, administering treatments, managing medications, and dispensing prescribed medicines.

Jul 2019 – Jan 2021
Hwacheon, Korea

SKILLS

Programming Languages: Python, C/C++, Java, HTML/CSS, JavaScript, MySQL
Frameworks/Packages: PyTorch, Pandas, scikit-learn, NumPy, Matplotlib
Tools: Git/GitHub, VS Code, VS Community, PyCharm, Unix Shell, L^AT_EX
Languages: Native in **Korean**, Advanced in **English**, Intermediate in **Chinese**, Basic in **Spanish**

TEACHING

9307261 Current Topics On Machine Learning, Chungbuk National University
Teaching Assistant (working with Prof. Kyuri Jo)

Spring 2025

5110134 Artificial Intelligence, Chungbuk National University
Teaching Assistant (working with Prof. Kyuri Jo)

Fall 2024

LEADERSHIP & SERVICES

Captain, STROKE (Sogang Swimming Club)

Fall 2023

Swimming Instructor for Children with Autism, Mapo Art Center Swimming Pool

Fall 2023

Member, STROKE (Sogang Swimming Club)

Spring 2022 – Fall 2023

English Tutor, P&E English, Seoul

Feb 2021 – Feb 2023

Squad Leader, 27th Infantry Division, ROKA

Jul 2020 – Jan 2021

Member, HUG (Sogang International Volunteer Club)

Spring 2017 – Spring 2019

Volunteer Korean Tutor for Korean Chinese, Yantai, China

Spring 2015 – Fall 2015

HONORS & AWARDS

Outstanding Startup Idea Award, Sogang University

Fall 2021

1st Place, Likelion Hackathon

Fall 2021

1st Place, Likelion Ideathon

Summer 2021

STANDARDIZED TEST SCORES

iBT TOEFL: 111 (Reading: 30/30, Listening: 29/30, Speaking: 28/30, Writing: 24/30)
GRE General Test: Verbal (157/170, 73%), Quant (170/170, 92%), Analytical Writing (4.5/6.0, 83%)