

RESEARCH INTERESTS

AI for Healthcare, Precision Medicine, Drug Discovery

EDUCATION

<b>University of Southern California</b> Master of Science, Computer Science	Aug 2025 – Present Los Angeles, California
<b>Sogang University</b> 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
<b>Case Western Reserve University</b> Exchange Program	Aug 2022 – Dec 2022 Cleveland, Ohio

PUBLICATIONS

<b>Journal / Conference Publications</b> <b>Yi, G.*</b> , Ju, J.*, & Jo, K. <sup>#</sup> 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, <sup>#</sup> indicates corresponding author.	<b>2025</b>
<b>Oral Presentations</b> 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	<b>2025</b>

RESEARCH EXPERIENCES

<b>Bioinformatics &amp; Machine Learning Lab</b> , 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 – Jun 2025 Cheongju, Korea
<b>Research Project</b> , 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

<b>Google for Developers Machine Learning Bootcamp</b> , 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
<b>Likelion Sogang</b> , 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, MySQL  
**Frameworks/Packages:** PyTorch, Pandas, scikit-learn, NumPy, Matplotlib  
**Tools:** Git/GitHub, VS Code, VS Community, PyCharm, Unix Shell, L<sup>A</sup>T<sub>E</sub>X  
**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)  
**Swimming Instructor** for Children with Autism, Mapo Art Center Swimming Pool  
**Member**, STROKE (Sogang Swimming Club)  
**English Tutor**, P&E English, Seoul  
**Squad Leader**, 27th Infantry Division, ROKA  
**Member**, HUG (Sogang International Volunteer Club)  
**Volunteer Korean Tutor** for Korean Chinese, Yantai, China

Fall 2023  
Fall 2023  
Spring 2022 – Fall 2023  
Feb 2021 – Feb 2023  
Jul 2020 – Jan 2021  
Spring 2017 – Spring 2019  
Spring 2015 – Fall 2015

HONORS & AWARDS

**Outstanding Startup Idea Award**, Sogang University  
**1st Place**, Likelion Hackathon  
**1st Place**, Likelion Ideathon

Fall 2021  
Fall 2021  
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%)