

Ganghui Yi

🏠 hughyi.github.io

RESEARCH INTERESTS

AI for Healthcare, Applied Machine Learning, Bioinformatics

EDUCATION

Sogang University

Bachelor of Science in Engineering, Computer Science and Engineering

Bachelor of Science, Life Science (Double Major)

Honors: *Magna Cum Laude*

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 - Feb 2023

Cleveland, Ohio

RESEARCH EXPERIENCES

Bioinformatics & Machine Learning Lab, Chungbuk National University

Research Intern

Advisor: Prof. Kyuri Jo

Designed a MAML-based few-shot learning model, pretrained on TCGA data and using GEO data selected via DisGeNet-based Jaccard similarity, to predict non-cancer disease presence by applying DGE analysis.

Incorporated Reactome pathways as hidden layers in the model, applying XAI techniques like LRP to improve interpretability and identify key biomarkers through relevance score analysis.

Aug 2024 – Present

Cheongju, Korea

Research Project, Sogang University

Undergraduate Researcher

Advisor: Prof. Jungmin So

Developed an enhanced Federated Multi-Armed Bandit (FMAB) algorithm for cognitive radio, improving spectrum access, reducing regret, and lowering communication costs through client cooperation. [pdf][code]

Mar 2023 – Jun 2023

Seoul, Korea

TECHNICAL EXPERIENCES

Google for Developers Machine Learning Bootcamp, Google Korea

Selected Participant

Engaged in a 14-week program combining deep learning theory (Andrew Ng's Deep Learning Specialization) with hands-on experience through Kaggle competitions and collaborative projects using Gemma open models.

Jun 2024 – Present

Seoul, Korea

Likelion Sogang, Likelion

Front-end Developer

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 through hashtags and titles, streamlining collaboration and information retrieval.

Mar 2021 – Dec 2021

Seoul, Korea

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

TEACHING

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
Member, HUG (Sogang International Volunteer Club)
Volunteer Korean Tutor for Korean Chinese, Yantai, China

Jul 2020 - Jan 2021
Spring 2017 - Spring 2019
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

SKILLS

Programming Languages: C/C++, Python, Java, HTML/CSS, MySQL
Frameworks/Packages: PyTorch, TensorFlow, Keras, Pandas, NumPy, React
Tools: Git/GitHub, Unix Shell, L^AT_EX
Languages: Native in **Korean**, Advanced in **English**, Intermediate in **Chinese**, Basic in **Spanish**

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%)