

Jiwoo Hong

mail: jiwoo0729@yonsei.ac.kr
blog : <https://jiwoohong01.github.io>
github : <https://github.com/jiwoohong01>

Education

Yonsei University	Mar 2020 - Aug 2025(expected)
B.S. in Computer Science, Mathematics	Cumulative GPA: 4.02/4.30
University of California, Berkeley	January 2023 - May 2023
Exchange Student, Mathematics	GPA: 3.93/4.00
Sejong Academy of Science and Arts	Mar 2017 - Feb 2020
Highschool for Gifted Students in Math and Science	

Research Experience

Yonsei University	Mar 2024 - Feb 2025
Undergraduate Intern (Advisor: Jinkyu Jeong)	
<ul style="list-style-type: none">Participated in weekly team meetings and presented research findings.<ul style="list-style-type: none">Conducted research on modern key-value store databases such as LevelDB, RocksDB, and SplinterDB.Investigated how key-value pairs are actually stored in RAM and on disk by the operating system.Wrote and tested code to explore the internal storage mechanisms of RocksDB	

Honors

Merit-based scholarship	2020-2, 2021-2, 2022-1, 2023-1, 2024-1
Outstanding Scholarship for Academic-Industrial Cooperation	2024-1
High Honors	2020-1
Honors	2021-2, 2022-2, 2024-1

Skills

Programming Languages
Python, Pytorch, C/C++, Java, R
Scripting & Automation
Shell scripting, Bash
Tools & Platforms
Git, Linux, AWS
Language skills
Native Korean, Fluent English(OPIc IH, Toeic 875)

Projects

Exploring Recommendation Systems: A Multi-Modal Approach to GNN-Based Models	Sep 2023 – Dec 2023
Software Capstone Design course	
<ul style="list-style-type: none">Revealed that the order of concatenation significantly affects the performance of a multimodal recommendation systemAchieved 66.7% increase in precision and 61.4% increase in NDCG over the baseline by sequentially connecting visual, acoustic, and text modalities	
Korean AI competition Finalist	Aug 2023 - Nov 2023
speech recognition : Closer through sound: Specialized speech recognition for the elderly and children	
<ul style="list-style-type: none">Improved recognition quality from cer 0.424 to cer 0.339	

- 10 teams are selected as finalist among 110 teams

Privacy-Preserving Diffusion Models: Integrating Differential Privacy for Secure Image Generation

Mar 2024 - June 2024

Software Capstone Design course

- Identified the potential to balance data privacy and model performance using DP-SGD

Face Recognition

Jan 2024 – Mar 2024

Academic-Industrial Cooperation in YAI

- Developed model for face recognition

Conact

Sep 2022 – Dec 2022

Software Engineering course

- Developed a mobile app for clothing recommendations
- Implemented an AI model that extracts and combines image and text features using CLIP
- Received the **best reviews**

Sleep stage classification based on machine learning, Yonsei University

Jan 2022 – Feb 2022

ABC Lab, Yonsei University

- Conducted Data Preprocessing and research based on Machine learning using neural data

Extracurricular

Global Science Museum Exploration Program

Jan 2019

Taught Japanese student about Science

Tutor

Engineering Mathematics(2)

Sep 2024 - Dec 2024

Taught peer students about Mathematics

YAI

Sep 2023 - June 2024

Student Club learning about artificial intelligence

Learned about computer vision, reinforcement learning