

## Education

### Korea University

*Undergraduate*

- > B.S. in Computer Science and Engineering
- > GPA: 4.49 / 4.5 (for 4 semesters, Major GPA: 4.5/4.5)

Mar. 2022 – Present  
Seoul, Korea

## Interests

**Representation Learning and Multimodality** Representation Learning, Multimodal Generative Models

**Computer Vision** Image Translation, Video Tracking, Diffusion, 3D Vision

## Experiences

### CVLAB, Korea University

*Undergraduate internship*

- > Conducting research and study on point tracking-based video diffusion editing

Dec. 2023 – Present  
Seoul, Korea

## Honors & Awards

### Grand Prize, iNThon (Korea University College of Informatics Datathon)

- > Datathon hosted by Korea University College of Informatics
- > Prize ₩3,000,000 and a chance to train in Silicon Valley
- > Developed a language model for commonsense reasoning with data augmentation and re-ranking method

Nov 2023

### President's Award, Korea University

- > Award given to an undergraduate student with GPA 4.5/4.5 for two consecutive semesters

Spring 2023, Fall 2023

### Sencond Place, the 2nd AIKUTHON

- > Datathon with 10 teams composed of AIKU members.
- > News Summarizing with KoBART, Score: 0.978

Apr 2023

### People's Choice Award, 2023 East Asia GDSC Global Hackathon "The Bridge"

- > Hackathon held in Japan with 54 GDSC members from Korea and Japan
- > Award given to the team that receives the most votes from hackathon participants
- > Cultural facilities recommendation service, Contribution to data collection and search algorithm implementation

Feb 2023

### Dean's Award, Korea University

- > Award given to an undergraduate student with GPA 4.5/4.5 for a semester

Fall 2022

## Extracurricular Activity

### AIKU (AI Academy of Korea University)

*Technical & Academic Administrator (Jan 2023 - Dec 2023)*

*President (Dec 2023 - )*

- > Korea University's first undergraduate deep learning academy, participated as a founding member and elected the 3rd president
- > Participated in various projects, sessions, and weekly paper reading seminar

Sep 2022 - Present  
Seoul

### GDSC KU (Google Developer Student Club, Korea University)

*Crew (Sep 2022 - Dec 2022), Core (Jan 2023 - )*

- > Participated in various AI projects
- > Application of Linear Algebra / AI Session instructor for junior members

Sep 2022 - Present  
Seoul

### KUCSA (Korea University Computer Science Academy)

*Senior*

- > Participated in various projects and sessions

Mar 2022 – Present  
Seoul

## Projects

### Horang Studio

Aug 2023 - Sep 2023

- > AI profile picture generation service for Korea, Yonsei University student using Pretrained Stable Diffusion, supported by Kakao Brain
- > Contribution to idea research, hyperparameter tuning and prompt engineering

### Development of Image Translation Latent Diffusion Models

Aug 2023 - Oct 2023

- > Finetuned LDMs semantic map conditioned with ControlNet for unsupervised and unpaired synthetic-to-real image translation
- > Industry-University cooperation project with Korea University CVLAB, participated as AIKU Team Leader, contribution to code implementation

### DiscoRF

Mar 2023 - Jun 2023

- > Proposed TensorRF with adversarial loss and real-synthesized image discriminator for better high-frequency details
- > DATA302 (Introduction to Computer Vision and its Application) Term project, Contribution to code implementation, experiments, etc.

### IConZIC

Mar 2023 - Jun 2023

- > Proposed Image-Conditioned Zero-shot Image Captioning Model (IConZiC), for faster convergence and stable generation of image caption by utilizing Gibbs sampling and ViLT
- > COSE461 (Natural Language Processing) Term project, Contribution to idea development, code implementation, experiments, etc.

### MelitsUp & @tune

Sep 2022 - Aug 2023

- > Developed a music recommendation service images provided by users and lyrics, using pre-trained image captioning model (BLIP-2) and sentence embedding models (KoSBERT, KoSimCSE, ...)
- > Team leader, contribution to idea planning, data collection, model implementation, fine-tuning, experiments, prototype development, and implementing prompt generation

### PyTrader

Jul 2022 - Sep 2022

- > Developed an algorithm-based automatic stock trading program
- > Contribution to asynchronous processing, implementation of automated algorithms, and UI improvement

## Courseworks

### Computer Science & Data Science

- > Computer Programming (C, Python)
- > Linear Algebra, Probability and Statistics
- > Data Structure, Discrete Mathematics, Algorithms, Computer Architecture
- > Machine Learning, Artificial Intelligence, Deep Learning, Data Science, Advanced Machine Learning
- > Introduction to Computer Vision and its Application, Natural Language Processing
- > Interactive Visualization, Computer Graphics

### Industrial Engineering

- > User Experience and Artificial Intelligence

## Skills

**Programming Languages** Python, C++, JavaScript(Beginner), Dart(Beginner)

**Frameworks & Tool** PyTorch, Flutter, Git, Figma

**Languages** Korean(Native), English(Proficient)