

Juhyun Lee

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Education

Chung-Ang University

Undergraduate Student

March 2020 - August 2023

Seoul, Korea

- Bachelor of French Literature and Applied Statistics (Summa Cum Laude)
- Total GPA of 4.40 / 4.50 (98.86 / 100)
- **Coursework:** Deep Learning for Image Data Analysis, Deep learning for AI, Data Structure, Algorithm, Data Mining
- **Honors:** Department Secondary Honor Scholarship (2022), Specialized Academic Scholarship (2022), Department Secondary Honor Scholarship (2021), Department Honor Scholarship (2020)

Research Experience

CAU ET Laboratory

Undergraduate Research Assistant (Adviser: Professor Ilyoup Kwak)

March 2022 - June 2023

- Ranked 3rd place in Dream Challenge “Predicting gene expression using millions of promoter sequences” [code] and participated in RSGDream2022 conference
- Conducted data preprocessing, experiments with machine learning and deep learning models (from n-gram to transformer), and proposed a novel transformer model
- Co-authored preprint “Proformer: a hybrid macaron transformer model predicts expression values from promoter sequences”
- Participated in DCASE (Detection and Classification of Acoustic Scenes and Events) Task4 Sound Event Detection in 2023
- Applied an attention network optimized for extracting frequency information and authored a technical report [pdf]
- Medical Data Analysis: performed multivariate logistic regression to identify significant factors affecting taste and olfactory abnormalities, as well as the discrepancies between patient’s subjective judgments and their objective test results

CAU Intelligent Multimodal Reasoning (IMR) Laboratory

Undergraduate Research Assistant (Adviser: Professor Junyeong Kim)

January 2023 - June 2023

- Conducted weekly paper reviews on mitigating bias in AI systems and participated in monthly seminars with the KAIST U-AIM laboratory

Projects

Whole Slide Image Classification

Deep Learning for Image Data Analysis course (Instructor: Changwon Lim)

September 2022 - December 2022

- Led a project on detecting stroke types from Whole Slide Image data using Multiple Instance Learning and the CLAM model
- Delivered an oral presentation and wrote a report

Caricature Generation

AI Developer

July 2022 – Aug 2022

- Created a caricature generation website using React(Front-end), Django(Back-end), and StyleCariGAN and StyleCLIP(AI) models [code]
- Combined StyleCLIP and StyleCariGAN model to generate caricatures with different emotions

Extracurricular Activities

SSAFY

SAMSUNG SOFTWARE ACADEMY FOR YOUTH

July 2023 - December 2023

- Gained knowledge of Object-Oriented programming principles through in-depth learning and practical application of Java
- Sharpened Java programming skills and acquired expertise in Data Structures and Algorithms
- Developed proficiency in VueJS, Spring framework, and MySQL

Chung-Ang University AI Club

Regular Member

March 2022 - August 2022

- Gave presentations on state-of-the-art language models and their code implementations
- Participated in study groups for Natural Language Processing and Data Science

Tutor

- Taught international students majoring in French Literature, focusing on French grammar and expressions
- Recognized as the best team and tutor within the program

Skills

Programming Languages Python, R, Java, MySQL, JavaScript

Frameworks Pytorch, TensorFlow, VueJS, Spring

Language Proficiency English (IBT TOEFL 108), Korean (Native), French (DELFB1)

Reference

Ilyoup Kwak

Assistant Professor

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Changwon Lim

Professor

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Byeongchan Seong

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Junyeong Kim

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