

## EDUCATION

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### Korea Advanced Institute of Science and Technology

Bachelor of Engineering in Bio and Brain Engineering

Daejeon, South Korea

Mar 2013 – Feb 2020

### Seoul National University

Master of Engineering in Artificial Intelligence

Seoul, South Korea

Sep 2021 – Aug 2023

### Korea Advanced Institute of Science and Technology

Integrated Master-PhD Course in Artificial Intelligence

Daejeon, South Korea

Feb 2024 –

## EXPERIENCE

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### Research Intern

Department of Brain and Cognitive Sciences, Seoul National University

Feb 2020 – Aug 2020

Seoul, South Korea

- Analyzing MRI image using MATLAB and FreeSurfer
- Analyzing electroencephalogram (EEG) data
- Conducting EEG tests
- Conducting Mini-Mental State Examination (MMSE)

### Machine Learning Engineer

DeepBio

Sep 2020 – June 2021

Seoul, South Korea

- Predicting the risk of disease occurrence based on the health screening data and single nucleotide polymorphism (SNP) data using machine learning
- Experiments on knowledge distillation using image data (CIFAR-10 and CIFAR-100) for model compression

### Research Intern

Bio-MAX Institute, Seoul National University

June 2021 – Sep 2021

Seoul, South Korea

- Analyzing multi-omics data
- Reproducing a paper on how to use machine learning for quantitative assessment on the degree of oncogenic de-differentiation

### Natural Language Processing Intern

NCSoft

July 2023 – Oct 2023

Pangyo, South Korea

- Augmentation of Korean-English parallel corpus based on dependency parsing
- Construction of common sense knowledge graph based on events extracted from raw text
- Data collection and analysis for developing conversational technologies
- Analysis and process for text data for developing language model and machine translation technologies

### Image Segmentation

MeissaPlanet

Oct 2023 – Jan 2024

Seoul, South Korea

- Image segmentation utilizing Segment Anything Model (SAM)
- Attempts to accurately measure the earthwork volume through image segmentation of satellite images of construction sites

## PUBLICATIONS

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- Lee, Dohoon, Jeewon Yang, and Sun Kim. "Learning the histone codes with large genomic windows and three-dimensional chromatin interactions using transformer." **Nature Communications** 13.1 (2022): 6678.
- Lee, Dohoon, et al. "Metheor: Ultrafast DNA methylation heterogeneity calculation from bisulfite read alignments." **PLOS Computational Biology** 19.3 (2023): e1010946.

- Yang, Jeewon, et al. "Deep learning-based survival prediction using DNA methylation-derived 3D genomic information." **ACM-BCB 2023 (Top 10%)**.
- Kweon, Sunjun, et al. "EHRNoteQA: An LLM Benchmark for Real-World Clinical Practice Using Discharge Summaries." **Advances in Neural Information Processing Systems 37** (2024): 124575-124611

## PRESENTATIONS

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- The 49th Annual Meeting of Korean Cancer Association & 9th International Cancer Conference (June 2023).
  - Title: Deep learning-based survival prediction using DNA methylation-derived 3D genomic information.

## TEACHING

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- Teaching Assistant
  - Algorithm (Sep. 2022 - Dec. 2022)
  - Machine Learning for Healthcare (Mar. 2025 - Jun. 2025)

## LANGUAGE

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### **Korean**

*Fluent (Native)*

### **English**

*Fluent (both written and verbal)*

- TOEIC: 900 (2023/04/15)