Dongsuk Jang

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EDUCATION

Seoul National University(Advisor: Jinwook Choi)

Seoul, Korea

M.S. Interdisciplinary Program in Bioengineering

Mar 2023 - Feb 2026(Expected)

Research Interests: Natural Language Processing, Multimodal AI, Medical AI

Yale University (Advisor: Arman Cohan)

CT, USA

YaleNLP Group, Department of Computer Science

Oct 2024 - Aug 2025(Expected)

Sungkyunkwan University

Suwon, Korea Mar 2015 - Feb 2023

B.S. Integrative Biotechnology
Micro Degree Core-Bio A-School Track

Haeundae Highschool

Busan, Korea

Established CBC(Chemical Biology Club), 3 years in Mathematical Essay Club

Mar 2012 - Feb 2015

PUBLICATIONS

• Dongsuk Jang[†], Hyeryun Park[†], Jiye Son, Hyeonuk Hwang, Su-jin Kim, Jinwook Choi: "Automated Information Extraction from Thyroid Operation Narrative: A Comparative Study of GPT-4 and fine-tuned KoELECTRA" In: American Medical Informatics Association (AMIA), Informatics Summit. 2024. [pdf]

Projects

- Table to Text Generation task research (Dec 2023 Present): Table to Text generation research comparing Seq2Seq models with Hierarchical Encoder and diverse LLM finetuning methods(PEFT) such as QLoRA, etc.
- Natural Language Search System on Clinical Data Warehouse (Feb 2024 Present): Development of a search system that answers doctor's natural language questions about patient info. Converting medical natural language questions into best sql queries.
- Automatic Generation of Thyroid Operation Records on Web(Mar 2023 Feb 2024): Development of a web-based system (voice recognition using CLOVA Note, extraction of clinical info with KoELECTRA, normalization of extracted results, image generation) and comparison with GPT-4 few-shot setting.
- CNN Image Classification Project(Mar 2023 May 2023): Building basic CNN Image classification model that classifies sports balls vs human faces.
- Word2Vec from Scratch(May 2023 Aug 2023): Study the principle of word2vec and build up from scratch. Train the own model with the book 'Alice in Wonderland' and compare performance with original word2vec library.
- Winter Internship Project(Dec 2022 Feb 2023): Compare the performace of various models(m-LSTM as baseline, BERT based models such as BioELECTRA, DeBERTa, PubMedBERT, RoBERTa etc.) MedNLI Task with MIMIC-III Dataset and find out the best parameter settings.

EXPERIENCE

• Student Intern, Samsung Advanced Institute for Health Sciences and Technology:

Mar 2021 - Dec 2022

- About: I started studying computer science subjects for the first time, realizing that much research in biology and
 medicine is also happening through the use of computers, which sparked a great curiosity and had the biggest influence
 on my current career choice.
- o Advisor: Seonguk Seo(03/2021-05/2022), Wonchul Cha(06/2022-12/2022)
- Research Intern, Liflex Science Inc.:

Jun 2022 - Aug 2022

- **About**: With a great interest in entrepreneurship and business, worked as an intern at a startup company, learning about the overall practical aspects of a startup, especially in investment acquisition and R&D. Realized that more important than novel ideas is to concretize them and develop them into a business.
- o Supervisor: Jinhong Kim, Dongsoon Ahn
- Military Service, Korean Augmentation to the United States Army, USAG-Daegu:

Jan 2018 - Sep 2019

- **About**: Worked alongside the Korean and American military, understanding and coordinating the differences between each military and culture. Additionally, learned how to live a proactive life based on strong physical fitness and a regulated lifestyle.
- o Role: Human Resources Specialist(42A) & Senior KATUSA

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Honors and Awards

- Next Generation BioHealth Leader Award at Sungkyunkwan University Feb, 2023
- Best Intern Award at Samsung Advanced Institute for Health Sciences and Technology August, 2021
- Commandants list at KATUSA training academy April, 2018

TEACHING ASSISTANT

• Computer Assisted Medical Data Processing in the Department of Medicine Python Basics, Data Analysis and Machine Learning(breast cancer dataset) Selective Course for undergraduate students in the Department of Medicine 2024

Python Basics, Data Analysis using pandas(breast cancer dataset), ANN classification(breast cancer dataset)

Professional Services

• Reviewer for the AMIA 2024 Annual Symposium

SKILLS SUMMARY

Languages: Python, R, Matlab, SQL
Frameworks: Pytorch, TensorFlow

• Tools: Git, Docker

• Platforms: Linux(Ubuntu), Windows

• Soft Skills: Leadership, Writing, Time Management

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