

Dongsuk Jang

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EDUCATION

- **Seoul National University(Advisor: Jinwook Choi)** Seoul, Korea
M.S. Interdisciplinary Program in Bioengineering *Mar 2023 - Feb 2025(Expected)*
Research Interests: Natural Language Processing, Multimodal AI, Medical AI
- **Sungkyunkwan University** Suwon, Korea
B.S. Integrative Biotechnology *Mar 2015 - Feb 2023*
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 performance 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.
 - **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.
 - **Supervisor:** Jinhong Kim, Dongsoo 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.
 - **Role:** Human Resources Specialist(42A) & Senior KATUSA

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** 2024
Python Basics, Data Analysis and Machine Learning(breast cancer dataset)
- **Selective Course for undergraduate students in the Department of Medicine** 2023
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