Dawon **Lee**

NLP Researcher · Software Developer

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Summary

Undergraduate student in the Department of Computer Science and Engineering at Dongguk University with a strong interest in Natural Language Processing (NLP). Experienced in machine learning, software development, and research projects. Passionate about continuous learning and exploring new technologies. Proven ability to conduct research, develop innovative solutions, and work effectively in collaborative environments. Skilled in Python, Transformers and PyTorch. Enthusiastic about contributing to AI advancements and solving complex problems.

Education

B.S. in Computer Science and Engineering

Dongguk University

COLLEAGE OF ENGINEERING

Mar. 2019 - Present

- Major GPA: 4.25/4.5
- Overall GPA: 4.27/4.5
- Expected graduation: Feb. 2025

AI Natural Language Processing Specialist Training Program (KDT)

Ministry of Employment and Labor, Goorm

MINISTRY OF EMPLOYMENT AND LABOR, GOORM

Oct. 2022 - Feb. 2023

- Corporate tailored national strategic industry training program.
- Focused on training practical talent in digital new technology.

Internship

Machine Learning Lab

Dongguk University

RESEARCH INTERN

Mar. 2023 - Present

- Conducted research on natural language processing and machine learning.
- Developed and implemented algorithms for various NLP tasks.

Projects

text_classification_yelp

Ministry of Employment and Labor, Goorm

NLP, CLASSIFICATION

Dec. 2022

- Developed a text classification model using Yelp reviews.
- Achieved high accuracy by fine-tuning BERT model.

machine_reading_comprehension_kor

Ministry of Employment and Labor, Goorm

NLP, QA

Jan. 2023

- Implemented a machine reading comprehension system for Korean.
- Utilized transformer-based models for question answering.

jeju_dialect_translator

Dongguk University

NLP, TRANSLATION

Feb. 2024

- Developed an AI model to translate Jeju dialect to standard Korean.
- Implemented an API server and integrated with ChatGPT API to allow conversations in dialect.

gpt2-dialogue-generation-pytorch

Dongguk University

NLP, GENERATION, RESEARCH

May. 2023

- Developed a dialogue generation model using GPT-2.
- Published research paper on response generation using dialogue summary.

ER_SENTINEL_CtrlCV

Korea Internet & Security Agency, KISA

BACKEND, SPRING BOOT

Jan. 2024

- Implemented a backend system for emergency response management.
- Used Spring Boot framework for development.

building_segmentation_dgdr

CV, SEMANTIC SEGMENTATION
- Developed a semantic segmentation model for building detection in satellite images.
- Achieved high accuracy and participated in a related competition.

2024-SolutionChallenge-sMiLe

Google

Feb. 2024

FRONTEND, FLUTTER, GEMINI
- Created a mobile application for mental health support.
- Used a checklist to assess depression stages and provided stage-specific care using Gemini API.
- Used Flutter for frontend development.

Emergency_Response_Manual_System

Dongguk University

Ongoing

NLP, DPR, sLLM
- Developing a system to assist 119 emergency responders by showing emergency room manuals during calls with dispatchers.
- Utilizing sLLM and DPR for real-time response guidance.

Honors & Scholarships

4th Place, AI Contest 2023

Dongguk University, National Center of Excellence in Software, DACON

Aug. 2023

COMPETITION
- Achieved 4th place in a building segmentation competition.

Dongguk University Scholarship

Dongguk University

2019 - 2024

SCHOLARSHIPS
- Major Excellence Scholarship (Dec. 2019)
- Merit-Based Scholarship (Mar. 2020)
- SW Specialized Merit Scholarship B (Mar. 2020)
- Dongguk Talent Development Scholarship (Mar. 2024)

Extracurricular Activities

Hansori

Dongguk University

Mar. 2019 - Feb. 2025

EXECUTIVE
- Executive of the traditional Korean music club at Dongguk University.
- Organized and planned performances.

Davinci

Dongguk University

Nov. 2019 - Feb. 2025

PARTICIPANT
- Participated in TRIZ education and mentoring programs under the Innovation Center for Engineering Education.

Machine Learning Lab

Dongguk University

Mar. 2023 - Feb. 2025

LAB INTERN
- Conducted research and development on various NLP projects.
- Participated in academic seminars.

GDSC

Google

Sep. 2023 - Sep. 2024

GENERAL MEMBER
- General Member of the Google Developer Student Clubs at Dongguk University.
- Presented at technical seminars.
- Participated in the Solution Challenge.

Farm System

Dongguk University

Jun. 2024 - Feb. 2025

ADVANCED
- Engaged in a farm system project at Dongguk University.

Skills

Programming Languages	Python
Frameworks	PyTorch, Transformers
Tools	AWS Sagemaker, Git
Languages	Korean (Native), English (Intermediate)

Publications

A Study on Response Generation Using Dialogue Summary

DOHYUN CHA, <u>DAWON LEE</u>, JIHIE KIM
- Proposed a bart model framework to generate responses by summarizing dialogue history.
- Implemented using ChatGPT to summarize and utilize dialogue context.
- Showed improved performance over traditional methods in generating context-aware responses.

Extracting, Retrieving Persona and Generating Responses for Long-Term Open-Domain Dialogue

DOHYUN CHA, <u>DAWON LEE</u>, JIHIE KIM
- Proposed ERGPerDialogue framework for persona-based dialogue response generation.
- Used Llama 2 for persona extraction and MSC dataset for training DPR model.
- Outperformed baseline models in Rouge-1 metric.

Publications

A Study on Response Generation Using Dialogue Summary