

### 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 Al advancements and solving complex problems.

#### **Education**

#### **B.S. in Computer Science and Engineering**

Dongguk University

Mar. 2019 - Present

Oct. 2022 - Feb. 2023

COLLEAGE OF ENGINEERING

- 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

- 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**

#### Emergency\_Response\_Manual\_System

Dongguk University, dootawiz Inc.

NLP, QA

Ongoing

- · 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.

#### 2024-SolutionChallenge-sMiLe

Google

FRONTEND, FLUTTER, GEMINI

Feb. 2024

- · 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.

#### **ER\_SENTINEL\_CtrlCV**

BACKEND, SPRING BOOT

Korea Internet & Security Agency,

KISA Jul. 2023

• Implemented a backend system for emergency response management.

• Used Spring Boot framework for development.

jeju\_dialect\_translator Dongguk University

NLP, TRANSLATION

May. 2023

- 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.

#### building\_segmentation\_dgdr

Dongguk University, National Center of Excellence in Software

CV, SEMANTIC SEGMENTATION

Aug. 2023

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

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.

#### machine\_reading\_comprehension\_kor

Ministry of Employment and Labor,

Goori

• Implemented a machine reading comprehension system for Korean.

Implemented a machine reading comprehension system for No

Utilized transformer-based models for question answering.

Ministry of Employment and Labor,

Goorn

NLP, CLASSIFICATION Dec. 2022

• Developed a text classification model using Yelp reviews.

· Achieved high accuracy by fine-tuning BERT model.

## **Honors & Scholarships**

#### 4th Place, AI Contest 2023

text\_classification\_yelp

NLP, QA

Dongguk University, National Center of Excellence in Software, DACON

Dongguk University

Dongguk University

Mar. 2023 - Feb. 2025

Jun. 2024 - Feb. 2025

2019 - 2024

COMPETITION Aug. 2023

• Achieved 4th place in a building segmentation competition.

#### **Dongguk University Scholarship**

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 \_\_\_\_\_

**EXECUTIVE** Mar. 2019 - Feb. 2024

• Executive of the traditional Korean music club at Dongguk University.

Organized and planned performances.

**Davinci**Dongguk University

Participant Nov. 2019 - Nov. 2020

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

Machine Learning Lab

Dongguk University

• Conducted research and development on various NLP projects.

Participated in academic seminars.

**GDSC** Google

General Member Sep. 2023 - Sep. 2024

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

Farm System Dongguk University

Engagad in a form system project at Danggyld University

Engaged in a farm system project at Dongguk University.

#### **Skills**

Hansori

I AB INTERN

Programming Languages Python

**Frameworks** PyTorch, Transformers **Tools** AWS Sagemaker, Git

**Languages** Korean (Native), English (Intermediate)



#### A Study on Response Generation Using Dialogue Summary

Korean Institute of Information Scientists and Engineers (KIISE)

May. 2023

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

IEEE Transactions on Audio, Speech and Language Processing (Submitted)

Jun. 2024

#### DOHYUN CHA, DAWON LEE, 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.