DongGeon Lee

lee.dg.125@gmail.com (<u>GitHub</u>, <u>LinkedIn</u>, <u>Personal Website</u>)

RESEARCH INTERESTS

Natural language processing, Large language model (LLM), Generative information retrieval, Learning from limited data, Domain-specific knowledge distillation

EDUCATION

B.S. in Information and Communication Engineering Inha University

March 2018 - February 2024

Incheon, South Korea

- Expected Graduation Date: February 16, 2024
- Relevant Courseworks: AI Applications, Signal and Systems, Database Capstone Design Algorithm Capstone Design, Data Structure, Digital Image Processing, Numerical Analysis

(Expected) M.S. in Artificial Intelligence

February 2024 - February 2026

Pohang, South Korea

Pohang University of Science and Technology (POSTECH)

• Expected Admission Date: February 16, 2024

• Advisor: Prof. Hwanjo Yu

RESEARCH EXPERIENCES

| Research Intern (Advisor: Prof. Wonik Choi) | November 2022 - Present |
|---|-----------------------------|
| Data Intelligence Laboratory, Inha University | Incheon, South Korea |
| Research Assistant (Advisor: Prof. Insook Cho) | August 2021 - June 2023 |
| Nursing Informatics Laboratory, Inha University | Incheon, South Korea |

PROJECTS

Big Data-Driven Aviation Safety Management Technology

March 2023 - Present Incheon, South Korea

• (Ongoing) Development of accident cause extraction model using Sentence-BERT

Contribution to Hugging Face Transformers Library

November 2023

Open-source Contribution

Online

• Improve PyTorch examples of uses of Hugging Face Transformers for better readability

FallSafe: Reducing Falls with Clinical Data

January 2022 - June 2023

Nursing Informatics Laboratory, Inha University

Data Intelligence Laboratory, Inha University

Incheon, South Korea

- Development of fall statement detection model using BERT-based models
- Development of named entity recognition model for automatic fall report generation
- Network analysis for drug prescription patterns

Intelligent Clinical Guidance System Development

August 2021 - December 2021 Incheon, South Korea

Nursing Informatics Laboratory, Inha University

• Topic-modeling for insightful medical data analysis

Conferences

- [1] Insook Cho, EunJu Lee, and **Dong-geon Lee**. Effects of Language Differences on Inpatient Fall Detection Using Deep Learning. *MedInfo 2023: The 19th World Congress on Medical and Health Informatics*, Sydney, Australia, July 2023. (Poster)
- [2] **Dong-geon Lee**, EunJu Lee, and Insook Cho. Bridging the Reporting Gap of Inpatient Falls to Improve Safety Practices Using Deep-Learning-Based Language Models and Multisite Data. *AMIA 2023 Clinical Informatics Conference*, Chicago, United States, May 2023. (Peer Reviewed, Oral Presentation)
- [3] Changhun Koo*, Yoonjoo Jung*, and **Dong-geon Lee***. Through deep learning-based video processing, Design and implementation of Smart Port Parking Information System. In *Proceedings of the Annual Conference of KIPS 2021*, Yeosu, South Korea, November 2021. (Oral Presentation, *: Co-First Author)

PATENT

[1] System for providing parking information and control method. *KR-Application No.* 10-2021-0178090, South Korea, December 2021.

CERTIFICATIONS

- [1] Algorithms 1, 2. POSTECH STAR-MOOC, September 2023 October 2023.
- [2] **Deep Learning Course (Advanced)**. Inha Innovation Sharing University for Future Vehicle Technology, January 2023.
- [3] Building Transformer-Based Natural Language Processing Applications. NVIDIA Deep Learning Institute, August 2022.
- [4] Fundamentals of Deep Learning. NVIDIA Deep Learning Institute, August 2022.
- [5] Amazon Web Services (AWS) Machine Learning Course. Inha Innovation Sharing University for Future Vehicle Technology, February 2022.
- [6] Understanding Deep Learning. Hancom Academy, February 2022.

SCHOLARSHIPS

- Received a **research scholarship** for on-campus undergraduate researchers (Spring 2023)
- Received on-campus extracurricular activities scholarships (Fall 2021, Fall 2022)

TEACHING EXPERIENCES

Teaching Assistant

March 2023 - Present

Dept. of Information and Communication Engineering, Inha University

Incheon, South Korea

- ICE2004: Data Structure (Fall 2023)
- ICE4016: Database Capstone Design (Fall 2023)
- ICE1005: Introduction to AI, Programming (Spring 2023)
- ICE3020: Algorithm Capstone Design (Spring 2023)

Computer Programming Instructor (Contract)

October 2021 - May 2023 Seoul, South Korea

Jamcoding, Co., LTD

- Data Analysis and Visualization
- Programming and Algorithms Python & C

TECHNICAL SKILLS

- Programming Languages: Python, C++, C, JavaScript, Shell Script
- Frameworks and Libraries: PyTorch, Keras, TensorFlow, Hugging Face, OpenCV
- Systems and Tools: Git, Linux, MySQL, AWS, Arduino, LATEX

LANGUAGE SKILLS

English

- Obtained an IH (Intermediate High) OPIc grade; proficient communication on diverse subjects, in August 2023
- Obtained a **805 TOEIC score**; advanced working proficiency, in February 2023