# Dong-geon Lee

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### Research Interests

Natural language processing, Large language model, Data-centric AI, AI applications

## **EDUCATION**

# B.S. in Information and Communication Engineering Inha University

March 2018 - Present Incheon, South Korea

- Expected Graduation Date: February 16, 2024
- GPA: 3.77 / 4.5 (Major GPA: 3.89 / 4.5)
- Relevant Coursework: AI Applications, Data Structure, Algorithm Capstone Design, Probability and Statistics, Signals and Systems, Database Capstone Design

#### RESEARCH EXPERIENCES

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

#### Projects

# Big Data-Driven Aviation Safety Management Technology Data Intelligence Laboratory, Inha University

March 2023 - Present Incheon, South Korea

• (Ongoing) Development of keyphrase extraction model through semi-supervised learning

# FallSafe: Reducing Falls with Clinical Data

January 2022 - June 2023

Nursing Informatics Laboratory, Inha University

Incheon, South Korea

- Development of deep learning-based fall statement detection model
- Development of NER 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

# Smart Port Traffic Control System

April 2021 - November 2021

ICT Mentoring, The Federation of Korean Information Industries

Seoul, South Korea

- Development of a deep learning-based system for real-time detection of parking conditions
- Development of a real-time parking lane recognition algorithm through image processing

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

## SCHOLARSHIPS

- Received a research scholarship for undergraduate researchers (Spring 2023)
- Received a work scholarship from the Inha University Research and Business Foundation (Spring 2022 - Summer 2022)
- Received a 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 (Part-time)

Jamcoding, Co., LTD

October 2021 - May 2023 Seoul, South Korea

- - 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