

# Dong-geon Lee

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( [GitHub](#), [LinkedIn](#), [Personal Website](#) )

## RESEARCH INTERESTS

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Natural language processing, Large language models, Data-centric AI, Parameter-efficient Fine-tuning

## EDUCATION

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### **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, Signal and Systems, Digital Image Processing, Data Structure, Algorithm Capstone Design, Database Capstone Design*

## RESEARCH EXPERIENCES

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### **Research Intern** (Advisor: Prof. Wonik Choi)

*Data Intelligence Laboratory, Inha University*

November 2022 - Present

*Incheon, South Korea*

### **Research Assistant** (Advisor: Prof. Insook Cho)

*Nursing Informatics Laboratory, Inha University*

August 2021 - June 2023

*Incheon, South Korea*

## PROJECTS

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### **Big Data-Driven Aviation Safety Management Technology**

*Data Intelligence Laboratory, Inha University*

March 2023 - Present

*Incheon, South Korea*

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

### **FallSafe: Reducing Falls with Clinical Data**

*Nursing Informatics Laboratory, Inha University*

January 2022 - June 2023

*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**

*Nursing Informatics Laboratory, Inha University*

August 2021 - December 2021

*Incheon, South Korea*

- Topic-modeling for insightful medical data analysis

### **Smart Port Traffic Control System**

*ICT Mentoring, The Federation of Korean Information Industries*

April 2021 - November 2021

*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

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- [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

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

## CERTIFICATIONS

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- [1] **Algorithms 1, 2**. *POSTECH STAR-MOOC*, 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

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

## TEACHING EXPERIENCES

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### Teaching Assistant

*Dept. of Information and Communication Engineering, Inha University*

March 2023 - Present

*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

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- **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, L<sup>A</sup>T<sub>E</sub>X

## LANGUAGE SKILLS

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### 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