

# DongGeon Lee

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

## RESEARCH INTERESTS

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

## EDUCATION

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**B.S. in Information and Communication Engineering** March 2018 - February 2024  
*Inha University* *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*

**M.S. (Expected) in Artificial Intelligence** February 2024 - February 2026  
*Pohang University of Science and Technology (POSTECH)* *Pohang, South Korea*

- Expected Admission Date: February 16, 2024

## RESEARCH EXPERIENCES

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**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

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**Big Data-Driven Aviation Safety Management Technology** March 2023 - Present  
*Data Intelligence Laboratory, Inha University* *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* *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  
*Nursing Informatics Laboratory, Inha University* *Incheon, South Korea*

- Topic-modeling for insightful medical data analysis

## 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**, 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

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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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<b>Teaching Assistant</b>	March 2023 - Present
<i>Dept. of Information and Communication Engineering, Inha University</i>	<i>Incheon, South Korea</i>

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

<b>Computer Programming Instructor (Contract)</b>	October 2021 - May 2023
<i>Jamcoding, Co., LTD</i>	<i>Seoul, South Korea</i>

- 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