Dong-geon Lee

lee.dg.125@gmail.com
(GitHub, LinkedIn, Personal Website)

Research Interests

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

Education

B.S. in **Information and Communication Engineering**   March 2018 - Present
Inha University   *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)   August 2021 - June 2023
Nursing Informatics Laboratory, Inha University   *Incheon, South Korea*

Projects

Big Data-Driven Aviation Safety Management Technology   March 2023 - Present
Data Intelligence Laboratory, Inha University   *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 using BERT
- 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

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 on-campus undergraduate researchers (Spring 2023)
- Received **work scholarships** from the Inha University Research and Business Foundation (Spring 2022 - Summer 2022)
- 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 (Part-time) — October 2021 - May 2023
Jamcoding, Co., LTD — *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