DONGJOON LEE

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RESEARCH INTERESTS

Deep Learning, Survival Analysis, Time Series Forecasting/Classification

EDUCATION

CHUNG-ANG UNIVERSITY, SEOUL Seoul, Korea
Overall GPA : 4.32 / 4.5
Master of Science in Artificial Intelligence 03/2023 – 02/2025
- Advisor: Prof. Changhee Lee

GYEONGGI UNIVERSITY, GYEONGGI-DO Gyeonggi-do, Korea
Major GPA : 4.29 / 4.5 | Overall GPA : 4.29 / 4.5
Bachelor of Computer Science and Engineering 08/2019 – 08/2022
- Advisor: Prof. Kyungyong Chung

Bachelor of Japanese Language and Literature 03/2016 – 08/2022
- Advisor: Prof. Eunsim Kwak

RESEARCH EXPERIENCES

ACTIONABLE INTELLIGENCE LAB, KU, KOREA 09/2024 – 02/2025
Graduate Student Researcher
- A study on Incheon fire department call data
  - Developed a multi-modal model for classifying emergency/non-emergency situation
  - Employed a model to predict the critical status at each point by reflecting the timeliness

DECISION INTELLIGENCE LAB, CAU, KOREA 08/2022 – 08/2024
Graduate Student Researcher
- A survival analysis model for Coronary Angiography patients
  - Employed deep learning to develop survival models for Coronary Angiography patients
  - Analyzed feature selection methods to address time-varying effects in survival analysis
- A natural language processing model for prediction in pediatric emergency patients
  - Designed a deep learning model for risk classification in pediatric emergency cases
  - Analyzed embedding techniques to improve handling of numerical data in medical NLP model

DATA MINING LAB, KGU, KOREA 02/2021 – 02/2022
Research Intern
- Basic Science Research Program, National Research Foundation of Korea
  - Proposed a oversampling method to address data imbalance in the healthcare domain

PUBLICATIONS

CONFERENCES

1. **D. Lee*,** H. Park*, C. Lee**, "Toward a Well-Calibrated Discrimination via Survival Outcome-Aware Contrastive Learning", *Conference on Neural Information Processing Systems (NeurIPS)*, Dec. 2024.
2. M. Hwang, **D. Lee**, C. Lee**, "Deep Survival Analysis from Whole Slide Images: A Multiple Instance Learning Approach", *International Conference on ICT Convergence (ICTC)*, Oct. 2024.
3. **D. Lee**, H. Park, C. Lee**, "Feature Selection for Survival Models", T*he Institute of Electronics and Information Engineers(IEIE)*, June. 2023.
4. **D. Lee**, K. Chung**, "Financial Crime Anomaly Detection Model using LSTM based Time-series Data and Regression Analysis", *Korean Society for Internet Information(KSII)*, Nov. 2021.
5. **D. Lee**, K. Chung**, "Health Risk Abnormal Detection using Image Style Transfer", *Korean Artificial Intelligence Convergence Technology Society(KAICTS)*, Aug. 2021.
6. **D. Lee**, K. Chung**, "Data Imbalance Processing through Over-sampling in Binary Classification Model", *Korean Society for Internet Information(KSII)*, Apr. 2021.

JOURNALS

1. H. Choi, **D. Lee***, H. Park*, C.Lee, "Development of a long-term survival prediction model for patients undergoing invasive coronary angiography using ensemble-based machine learning in time-to-event analysis", *Heart & Lung*, 2026.
2. J. Jeon, S. Cho, **D. Lee**, C. Lee**, J. Kim** , "BioBridge: Unified Bio-Embedding with Bridging Modality in Code-Switched EMR.", *IEEE Access*, 2024.
3. S. Cho, J. Jeon, **D. Lee**, C. Lee**, J. Kim**, "DSG-KD: Knowledge Distillation from Domain-Specific to General Language Models", *IEEE Access*, 2024.
4. A. Choi*, C. Kim*, J. Jeon, S. Cho, **D. Lee**, J. Kim**, C. Lee**, W. Bae**, "A Pediatric Emergency Prediction Model using Natural Language Process in the Pediatric Emergency Department", Scientific Reports, 2024.
5. **D. Lee**, J. Kang, K. Chung**, "Data Processing of AutoML-based Classification Models for Improving Performance in Unbalanced Classes", *Journal Of Convergence Society for SMB*, Jun. 2021.

* Equal contribution (first authors)

** Equal contribution (corresponding authors)

AWARDS

1. **Silver Prize,** 대한전자공학회가 하계종합학술대회, Sep. 2023.
2. **Grand Prize**, The 2nd Korea AI Manufacturing Data Analysis Contest in 2022, *Korea Advanced Institute of Science and Technology*, Dec. 2022.
3. **First Prize**, The 3rd Korea Smart Tourism Contents Contest, *Artificial Intelligence Convergence Society*, Nov. 2021.
4. **Excellence Prize**, Public Innovation Idea Contest, *Korea Health Industry Development Institute*, Aug. 2021.
5. **Excellence Prize**, Gyeonggi University Capstone Contest, *The Korean Institute of Information Technology*, Jun. 2021.
6. **Grand Prize**, National None-face-to-face BM Idea Discovery Contest , *Gyeongsang National University*, Feb. 2021.

CERTIFICATE

1. Test of English for International Communication Speaking Test AL/160
2. Japanese-Language Proficiency Test N3/N2/N1

LEADERSHIP ACTIVITIES

The 19th Big Data University Club Association TOBIGS

- Delivered lectures to the members on machine learning and deep learning
- Developed noise-canceling deep learning model for various modes of transportation