Ellen Da-eun Lee

✉ delee12@usf.edu
⚡ leedaeuni
in daeun-lee12
⌂ sites.google.com/view/daeun-lee

RESEARCH INTERESTS	**Affective Computing in Healthcare Applications** - aims to develop an AI model for monitoring health status to enhance mental well-being across the population and improve accessibility for vulnerable groups.

EDUCATION

University of South Florida, Tampa, FL, USA — Oct. 2023 - Present
Visiting Scholar in Computer Science & Engineering
Advisor: Prof. Seungbae Kim

Sungkyunkwan University, Republic of Korea — Mar. 2020 - Present
Ph.D. in Applied Artificial Intelligence
Advisor: Prof. Jinyoun Han

Sookmyung Women's University, Republic of Korea — Mar. 2012 - Feb. 2017
B.A. in Social Psychology

PROFESSIONAL EXPERIENCE

Raon Data — Jul. 2022 - Oct. 2022
- AI research Intern
- Preprocessing speech data to develop TTS models

Korea Psychological Autopsy Center — Apr. 2018 - Aug. 2019
- Data Scientist
- Conducting a 5-year analysis of suicide deaths in South Korea

PUBLICATIONS

* = (co-) corresponding author, ** = equal contribution

— **Conference**

[1] **Learning Co-Speech Gesture for Multimodal Aphasia Type Detection**
- **Lee, D.****, Son, S.**, Jeon, H., Kim, S., & Han, J.*
- **EMNLP 2023** - The 2023 Conference on Empirical Methods in Natural Language Processing
- [PDF] [CODE]

[2] **Towards Suicide Prevention from Bipolar Disorder with Temporal Symptom-Aware Multitask Learning**
- **Lee, D.****, Son, S.**, Jeon, H., Kim, S., & Han, J.*
- **KDD 2023** - The 29th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining
- [PDF] [DATASET & CODE]

[3] **Detecting Suicidality with a Contextual Graph Neural Network**
- **Lee, D.**, Kang, M., Kim, M., & Han, J.*
- **NAACL workshop, CLPsych 2022** - The 8th Workshop on Computational Linguistics & Clinical Psychology
- [PDF] [DATASET & CODE]

[4] **Cross-Lingual Suicidal-Oriented Word Embedding toward Suicide Prevention**

- **Lee, D.**, Park, S., Kang, J., Choi, D., & Han, J.*
- **EMNLP Findings 2020** - The 2022 Conference on Empirical Methods in Natural Language Processing Findings
- [PDF] [DATASET]

— **Journal**

[1] **Detecting depression on video logs using audiovisual features**
- Min, K.**, Yoon, J.**, Kang, M., **Lee, D.**, Park, E., & Han, J.*
- **Humanities and Social Sciences Communications** 10, 788 (SSCI, JCR 2022 IF = 3.5)
- [PDF]

[2] **Machine learning for mental health in social media: bibliometric study**
- Kim, J., **Lee, D.**, Park, E.*
- **Journal of Medical Internet Research**, 23(3), e24870. ISSN: 1438-8871 (SCIE, JCR 2019 IF=5.034, Q1 in Medical Informatics)
- [PDF]

PROJECT
EXPERIENCES

[1] **NRF International Mobility Program 2023**, The government of the Republic of Korea(MSIT) and the National Research Foundation of Korea
- Research Associate (*in Charge*)   Oct. 2023 - Sep. 2024
- Developing deep learning models for detecting mild cognitive impairment using speech data, University of South Florida (USF)

[2] **The International Research & Development Program**, National Research Foundation of Korea(NRF) funded by the Ministry of Science and ICT
- Project Manager   Jul. 2023 - Jul. 2024
- the Korea-U.S. bilateral personnel exchange program to promote the research activities of young female STEM researchers
- Developing a multilingual multimodal model for diagnosing dementia using speech data

[3] **A Clinical Decision Support System for Retinal Disease Detection with Explainable AI**, National Research Foundation of Korea (NRF)
- Research Associate   Mar 2023 to Feb 2027
- Analyzing image segmentation techniques on retinal disease detection

[4] **Developing Artificial Intelligence Models and Korean Datasets for Detecting Suicide Risk**, National Research Foundation of Korea (NRF)
- Research Associate (*in Charge*)   May 2022 - Apr. 2024
- Constructed Korean social media datasets, and developed deep learning models for detecting suicide risk

[5] **Developing Artificial Intelligence Application Models and Constructing Dataset for solving social issues**, Electronics and Telecommunications Research Institute (ETRI)
- Research Associate (*in Charge*)   Jun. 2021 - Aug. 2021
- Analyzed and constructed mental health related Q&A dataset
- Implemented web application using Flask, Python web framework, and uploaded project tutorial video

[6] **Developing a Model for Detecting Fake News on COVID-19**, Electronics and Telecommunications Research Institute (ETRI)
- Research Associate   Jul. 2020 - Nov. 2020
- Analyzed a social network using Youtube data and developed a model for detecting fake news on COVID-19

TEACHING FELLOW	[1] DAI5019: Graph Mining (Fall, 2022), Sungkyunkwan University
	[2] AAI3005: Data Mining (Spring, 2021), Sungkyunkwan University
	[3] AAI3006: Machine Learning (Spring, 2021), Sungkyunkwan University
	[4] DAI5002-01: AI Programming (Fall, 2020), Sungkyunkwan University
	[5] SWE2022-01: Introduction to Programming (Fall, 2020), Sungkyunkwan University

HONORS & AWARDS

Best Research Award   Jan. 2024
Dept. of Applied Artificial Intelligence, Sungkyunkwan University

Scholarship for International Research Program ($1,300)   Jul. 2023
National Research Foundation of Korea funded by the Ministry of Science & ICT

SIGKDD '23 Student Travel Award ($800)   Aug. 2023
The 29th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining

Graduate Scholarship ($22,000; 1/2 Tuition)   2020 - 2023
Sungkyunkwan University

REFERENCES

Prof. Jinyoung Han (e-mail: jinyounghan@skku.edu)
– Associate Professor
– Department of Applied Artificial Intelligence, Sungkyunkwan University, Seoul, Republic of Korea

Prof. Seungbae Kim (e-mail: seungbae@usf.edu)
– Assistant Professor
– Computer Science and Engineering Department, University of South Florida, Tampa, FL, USA

Prof. Daejin Choi (e-mail: djchoi@inu.ac.kr)
– Assistant Professor
– Computer Science and Engineering Department, Incheon National University, Incheon, Republic of Korea