

Ellen Da-eun Lee

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🔗 [leedauni](https://leedauni.github.io/)

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🏠 leedauni.github.io/

RESEARCH INTERESTS **Affective Computing in Healthcare Applications**
My research interests mainly revolve around Affective Computing with NLP and Multi-Modal Learning. I am excited about developing accessible AI healthcare systems to address tangible real-world challenges

EDUCATION **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 **University of South Florida**, Tampa, FL, USA Oct. 2023 - Present
• Visiting Scholar in Computer Science & Engineering
• Advisor: [Prof. Seungbae Kim](#)

RaonData, South Korea Jul. 2022 - Oct. 2022
• AI research Intern
• Processing speech data to develop TTS models

Korea Psychological Autopsy Center, South Korea Apr. 2018 - Aug. 2019
• Data Scientist
• 5-year time-series analysis of suicides in South Korea

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

— Conference

- [C-1] **A Dual-Prompting for Interpretable Mental Health Language Models**
• Jeon, H.**, You, D.**, **Lee, D.**, Son, S., Kim, S., & Han, J.*
• **CLPsych 2024** - The 9th Workshop on Computational Linguistics & Clinical Psychology
- [C-2] **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
• [\[PDF\]](#) [\[CODE\]](#)
- [C-3] **Towards Suicide Prevention from Bipolar Disorder with Temporal Symptom-Aware Multitask Learning**
• **Lee, D.**, Son, S., Jeon, H., Kim, S., & Han, J.*
• **ACM KDD 2023** - The 29th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining
• [\[PDF\]](#) [\[DATASET & CODE\]](#)
- [C-4] **Detecting Suicidality with a Contextual Graph Neural Network**
• **Lee, D.**, Kang, M., Kim, M., & Han, J.*
• **CLPsych 2022** - The 8th Workshop on Computational Linguistics & Clinical Psychology
• [\[PDF\]](#) [\[DATASET & CODE\]](#)

[C-5] **COVID-19 Korean fake news detection using named entity and user rep-
lification information**

- Park, C., Kang, J., **Lee, D.**, Lee, M. & Han**, Jinyoung
- **HCLT 2021** - The 33rd Annual Conference on Human and Cognitive Lan-
guage Technology
- [\[PDF\]](#)

[C-6] **Cross-Lingual Suicidal-Oriented Word Embedding toward Suicide Preven-
tion**

- **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

[J-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)
- [\[PDF\]](#)

[J-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)
- [\[PDF\]](#)

RESEARCH
PROJECTS

[P-1] **NRF International Mobility Program 2023, *MIST*¹ and *NRF*²**

- Research Associate (*in Charge*) Oct. 2023 - Sep.2024
- Developing AI models for detecting Dementia using speech data
- Collaborating with University of South Florida (USF)
- Published 1 conference articles as a first author

[P-2] **A Clinical Decision Support System for Retinal Disease Detection with Ex-
plainable AI, *NRF*²**

- Research Associate Mar. 2023 - Feb. 2027
- Analyzing image segmentation techniques on retinal disease detection

[P-3] **Developing Artificial Intelligence Models and Korean Datasets for Detect-
ing Suicide Risk, *NRF*²**

- Research Associate (*in Charge*) May. 2022 - Apr. 2024
- Constructed novel Korean social media datasets, and developed suicide risk
detection models
- Published 2 conference articles as a first author

[P-4] **Developing Artificial Intelligence Application Models and Constructing Dataset
for solving social issues, *ETRI*³**

- 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 up-
loaded project tutorial video
- Published 1 conference articles as a first author

[P-5] **Developing a Model for Detecting Fake News on COVID-19, *ETRI*³**

- Research Associate Jul. 2020 - Nov. 2020
- Analyzed a social network using Youtube data and developed a model for
detecting fake news on COVID-19
- Published 1 journal articles as a third author

****Sponsor**

- 1 MIST: Ministry of Science and ICT, The government of the Republic of Korea
- 2 NRF : The National Research Foundation of South Korea
- 3 ETRI: Electronics and Telecommunications Research Institute, South Korea

**HONORS &
AWARDS**

Best Research Award

Jan. 2024

- Dept. of Applied AI, Sungkyunkwan University

Scholarship for Korea-U.S. Research program (\$1,300)

Jul. 2023

- National Research Foundation of Korea (NRF) funded by the Ministry of Science & ICT
- Supported for being one of the 10 elite young female STEM researchers.

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

SERVICES

Reviewer

- CLPsych '23

Student Volunteer

- ACM KDD '23
- EMNLP '23

**TEACHING
FELLOW**

Sungkyunkwan University, Seoul, South Korea

- DAI5019: Graph Mining, Graduate Course Teaching Assistant Fall 2022
- AAI3005: Data Mining, Undergraduate Course Teaching Assistant Spring 2021
- AAI3006: Machine Learning, Undergraduate Course Teaching Assistant Spring 2021
- DAI5002-01: AI Programming, Graduate Course Teaching Assistant Fall 2020
- SWE2022-01: Intro to Programming, Undergraduate Course Teaching Assistant Fall 2020

REFERENCES

Prof. Jinyoung Han (e-mail: jinyoungghan@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