

Ellen Da-eun Lee

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

in [daeon-lee12](https://daeon-lee12.github.io/)

🏠 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] **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

[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)

[P-2] **A Clinical Decision Support System for Retinal Disease Detection with Explainable 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 Detecting 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 journal 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 uploaded project tutorial video
- published 2 journal 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 2 journal articles as a first 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
	<ul style="list-style-type: none"> • Dept. of Applied AI, Sungkyunkwan University 	
	Scholarship for Korea-U.S. Research program (\$1,300)	Jul. 2023
	<ul style="list-style-type: none"> • 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. 	
SERVICES	SIGKDD '23 Student Travel Award (\$800)	Aug. 2023
	<ul style="list-style-type: none"> • The 29th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining 	
	Graduate Scholarship (\$22,000; 1/2 Tuition)	2020 - 2023
	<ul style="list-style-type: none"> • Sungkyunkwan University 	
TEACHING FELLOW	Reviewer	
	<ul style="list-style-type: none"> • CLPsych '23 	
	Student Volunteer	
	<ul style="list-style-type: none"> • ACM KDD '23 • EMNLP '23 	
TEACHING FELLOW	Sungkyunkwan University , Seoul, South Korea	
	<ul style="list-style-type: none"> • DAI5019: Graph Mining, Graduate Course Teaching Assistant 	Fall 2022
	<ul style="list-style-type: none"> • AAI3005: Data Mining, Undergraduate Course Teaching Assistant 	Spring 2021
	<ul style="list-style-type: none"> • AAI3006: Machine Learning, Undergraduate Course Teaching Assistant 	Spring 2021
	<ul style="list-style-type: none"> • DAI5002-01: AI Programming, Graduate Course Teaching Assistant 	Fall 2020
	<ul style="list-style-type: none"> • SWE2022-01: Intro to Programming, Undergraduate Course Teaching Assistant 	Fall 2020
REFERENCES	Prof. Jinyoung Han (e-mail: jinyoungghan@skku.edu)	
	<ul style="list-style-type: none"> • Associate Professor • Department of Applied Artificial Intelligence, Sungkyunkwan University, Seoul, Republic of Korea 	
	Prof. Seungbae Kim (e-mail: seungbae@usf.edu)	
	<ul style="list-style-type: none"> • Assistant Professor • Computer Science and Engineering Department, University of South Florida, Tampa, FL, USA 	
	Prof. Daejin Choi (e-mail: djchoi@inu.ac.kr)	
	<ul style="list-style-type: none"> • Assistant Professor • Computer Science and Engineering Department, Incheon National University, Incheon, Republic of Korea 	