Yewon Hwang

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EDUCATION

Ph.D. in Electrical Engineering 2021 - Present
Korea Advanced Institute of Science and Technology (KAIST)
Advisor: Prof. Jong-Hwan Kim

M.S. in Electrical Engineering 2019 - 2021
Korea Advanced Institute of Science and Technology (KAIST)
Thesis: *WITA: Writing In The Air Recognition System Using RGB Data*
Advisor: Prof. Jong-Hwan Kim

B.S. in Mechanical Engineering 2014 - 2018
The Pennsylvania State University

PUBLICATIONS

[1] EASUM: Enhancing Affective State Understanding through Joint Sentiment and Emotion Modeling for Multimodal Tasks
Yewon Hwang and Jong-Hwan Kim
Winter Conference on Applications of Computer Vision (WACV), 2024

[2] Self-Supervised Unimodal Label Generation Strategy Using Recalibrated Modality Representations for Multimodal Sentiment Analysis
Yewon Hwang and Jong-Hwan Kim
The European Chapter of the Association for Computational Linguistics (EACL) Findings, 2023

[3] Writing in The Air: Unconstrained Text Recognition from Finger Movement Using Spatio-Temporal Convolution
Ue-Hwan Kim*, **Yewon Hwang***, Sun-Kyung Lee, Jong-Hwan Kim
IEEE Trans. on Artificial Intelligence (TAI), Accepted Oct. 2022.

[4] Type Anywhere You Want: An Introduction to Invisible Mobile Keyboard
Sahng-Min Yoo, Ue-Hwan Kim, **Yewon Hwang**, Jong-Hwan Kim
International Joint Conference on Artificial Intelligence (IJCAI), 2021

[5] Marsnet: Multi-label classification network for images of various sizes
Ju-Youn Park, **Yewon Hwang**, Dukyoung Lee, Jong-Hwan Kim
IEEE Access, 2020

PROJECTS

Development of artificial intelligence technology that continuously improves itself according to changing situations in the real world Jan. 2020 - Present
Funded by Korea Ministry of Science and ICT

- Developed a task planning model leveraging LLM

Development of robot intelligence technology that continuously adapts locally to user responses in real-world service situations Jan. 2020 - Present
Funded by Korea Ministry of Science and ICT

- Developed a user sentiment/emotion-aware DL model

Development of an intelligent robot system capable of emotional interaction and collaboration with human Mar. 2019 - Dec. 2020
Funded by Korea Ministry of Science and ICT

- Developed a handwritten-text-in-the-air recognition system

Development of a pressure sensing orthotic brace for pectus carinatum Jan. 2018 – Apr. 2018
Funded by Penn State Health Milton S. Hershey Medical Center

- Implemented a pressure sensing and mapping mechanism on a orthotic brace for a patient's medical procedure monitoring

ACADEMIC SERVICES

Conference Reviewer

- International Conference on Intelligent Robots and Systems (IROS): 2023
- The European Chapter of the Association for Computational Linguistics (EACL): 2023
- Empirical Methods in Natural Language Processing (EMNLP): 2022

WORK EXPERIENCE

Electrical Engineering Dept., KAIST Jun. 2018 - Feb. 2019
Research Intern under Prof. Jong-Hwan Kim

- Developed a PCB defect classification model

Mechanical Engineering Dept., The Pennsylvania State University May 2017 - Aug. 2017
Undergraduate Research Intern under Prof. Sean Brennan

- NEUP(Nuclear Energy University Program): nuclear fuel rod storage surface defect inspection
- Built a robot that travels down the storage carrying EMAT for defect inspection

Engineering Science Dept., The Pennsylvania State University May 2016 - Aug. 2016
Undergraduate Research Assistant under Prof. Cliff Lissenden

- NEUP(Nuclear Energy University Program): nuclear fuel rod storage surface defect inspection
- Developed a software that controls and monitors ultrasound signals using LabVIEW

TECH. SKILLS

Python, PyTorch

LANGUAGE

Korean (Native Speaker), English (Fluent)