YUNA HWANG

yunahwang@cs.wisc.edu

https://yunahwang.github.io/

EDUCATION

University of Wisconsin-Madison, Madison, USA (UW-Madison) Sep.2022 - *May.2027*
- Ph.D. in Computer Science
- Advisor: Professor Bilge Mutlu

Sungkyunkwan University, Seoul, Republic of Korea Mar.2018 - Feb.2022
- Bachelor of Applied Artificial Intelligence, Bachelor of Economics (Statistics)
- Graduated *Magna Cum Laude*
- Advisor: Professor Hayeon Song

Indiana University, Bloomington, USA Jan.2019 - May.2019
- Exchange Student, College of Arts and Sciences
- 3.925/4.0 GPA

TECHNICAL SKILLS

Python/Java, Linux, Robot Operating System (ROS), R/SPSS, OracleSQL

PATENTS (APPLIED)

J.Lee*, J.Lee, J.Park*, Y.Hwang*, and J.Kim, "Method for Judging Abnormal Electrocardiogram Using Artificial Neural Network" Korean Patent Application No.1020210045672, **(2021)**.
∗ these authors contributed equally

HONORS AND AWARDS

Summer Research Assistantship Summer 2023
- Department of Computer Sciences, UW-Madison

Student Success Scholarship ($3200; Full Tuition) Jun.2021
- College of Computing and Informatics, Sungkyunkwan University

2nd Prize in the AI X Book-hackathon Competition Jan.2021
- Sungkyunkwan University Library and Mindslab Inc.

Academic Excellence Scholarship ($1800) Sep.2019
- AI Convergence Major, College of Computing and Informatics, Sungkyunkwan University

CONFERENCE PRESENTATIONS

1. Kim, D.H., **Hwang, Y.**, Wu, Y., Song, H. (2022). Coping with Stress during the COVID-19: Social Support through Social Media. The 72nd Annual International Communication Association Conference, Paris, France.

TEACHING EXPERIENCE

UW-Madison, Madison, USA
- Teaching Assistant, Undergraduate Course
  - CS320: Data Programming II Spring 2023
  - CS220: Data Programming I Fall 2022

Sungkyunkwan University, Seoul, Republic of Korea
- Teaching Assistant, Undergraduate Course
  - GEDT020: AI Basics & Uses   Fall 2021, Spring 2021
  - GEDT014: Computational Thinking and Software Coding   Spring 2020

RESEARCH AND PROJECTS

People and Robots Laboratory, UW-Madison   Feb.2023 - *present*
- Research Assistant
  - Took natural language rule generation approaches to intuitively modify robot behaviors from the domain experts' end

Human-AI Interaction Lab, Sungkyunkwan University   Sep.2021 - Jul.2022
- Undergraduate Research Intern
  - Investigated the mediating effects of coping mechanisms and media use in times of COVID-19 by building structural equation models (SEM) using SPSS and R programming language
  - Specified interactive elements and built storyboards for a digital therapeutics app that targets depression patients, endorsing them to build companionship with a virtual pet character
    - worked in collaboration with Samsung Medical Center
    - funded by the South Korean Ministry of Trade, Industry, and Energy
  - Implemented mobile banking application prototype for older adults; experimented the effects of contextual information on the perceived level of trust toward service and virtual agent
  - Taught Google Dialogflow chatbot applications, Shape-changing Interfaces (SCIs), and Principal Component Analysis (PCA) in weekly study meetings

EXTRACURRICULAR ACTIVITIES AND OUTREACH

Wisconsin Historical Society   Jun.2023 - *present*
- Volunteer in auditing a list of periodicals that span across local Wisconsin historical societies

People and Robots Laboratory Tour, UW-Madison   May.2023
- Gave a demonstration of the collaborative robot (cobot) *Periscope* to La Follete high school students

Wisconsin AI Safety Initiative, UW-Madison   Apr.2023 - *present*
- Facilitator for the Interpretability Up-Skill Event (Apr.2023)
  - Taught CNNs and assisted in topics such as transformers and Explainable AI

Effective Altruism UW-Madison, UW-Madison   Oct.2022 - Dec.2022
- AGI Safety Fundamentals Program Fellow
  - Participated in weekly group discussions on inverse reinforcement learning (IRL), goal misgeneralization, and AI governance

Statistical Analysis Student Society, Sungkyunkwan University   Sep.2020 - Nov.2021
- Data Mining Team Leader (Mar.2021 - Jun.2021)
  - Spearheaded group project to implement content-based filtering recommendation system with domain-specific variables and utilized BERT algorithms for keyword extraction in text review data
  - Managed an imbalanced binary classification task through various sampling techniques and classifiers, such as MICE imputation, SMOTE, and Support Vector Data Description (SVDD)
  - Taught anomaly detection techniques, such as One-class SVM, Isolation Forest, and Autoencoder

Center of Support for Students with Disability, Sungkyunkwan University   Mar.2021 - Jun.2021
- Student Academics Volunteer
  - Provided Korean lecture scripts for students with hearing impairment (COM2016: Linux Systems)

Model United Nations, Indiana University   Feb.2019 - May.2019
Representative of South Korea to the United Nations   Bloomington, IN

- Introduction to International Relations (Professor: Dina Spechler); proposed resolutions raising awareness of trade union rights and engaged in multilateral negotiations in the General Assembly