Lucia Fang

Pittsburgh, PA | yufang@andrew.cmu.edu | +1 (412) 969 9213 | https://www.linkedin.com/in/lucia-fangyu/

EDUCATION

Carnegie Mellon University *May 2025*
Bachelor of Science | Information Systems
CMU Dietrich College Dean's List with High Honors 2021-2022 & 2022-2023

PROJECTS

COPUSense Research Project at OH!Lab, Carnegie Mellon University *January 2024 - Present*
Awarded a $500 SURG grant for developing "COPUSense," a *Streamlit* App application to evaluate STEM classroom practices using *machine learning* and EduSense technology; responsible for conducting comprehensive research, including model building, data analysis, and application development, aimed at improving personalized learning in STEM classrooms; scheduled to present findings at the 2024 Undergraduate Research Symposium.

Data Analytics Intern, Siemens Innomotics *June 2023 - Present*
Lead the US-team in implementing headquarter's data protocol; developed 30+ *SQL*-based dynamic data visualization applications; engaged in multiple iterations of CI/CD pipeline to ensure development meets business needs.

Undergraduate Researcher at OH!Lab, Carnegie Mellon University *November 2022 - December 2023*
Analyzed 10+ multimodal classroom data in *machine learning* and performed both linear and nonlinear classification; performed various oversampling techniques and benchmarked classification accuracy using leave-one-out; deployed a *Streamlit* App to analyze teacher's performance based on objective measurements.

End-toEnd Database Development Project, Carnegie Mellon University *November 2023 - December 2023*
Spearheaded a team project focusing on the full lifecycle of database development, from initial user story analysis to entity-relationship modeling and schema normalization; implemented and fine-tuned a *PostgreSQL* database, employing advanced SQL and Python scripting for robust data management and application functionality.

Mental Health and Music Analysis Project, Carnegie Mellon University *October 2023 - December 2023*
Formulated the research question and sourced a relevant dataset from Kaggle to conduct a comprehensive analysis on music's impact on mental health using R; performed exploratory data analysis (EDA) utilizing scatterplots, bar charts, and line graphs to examine the relationships between music genre preferences and mental health indicators; presented findings through detailed histograms, box plots, heatmaps, and trend analyses, offering insightful trends and patterns.

Ubiquitous Computing EmoSense, Carnegie Mellon University *January 2023 - May 2023*
Developed an integrated, multimodal, multi-language solution for real-time emotion recognition using open-source softwares: *DeepFace*, *Speech-to-text*, *ChatGPT Wrapper*; tested classification's AI-fairness using two different skin tones (light and dark) and three different languages (Chinese, Spanish, and English); deployed the application on *Streamlit cloud*.

Machine Learning Independent Study, Carnegie Mellon University *August 2022 - May2023*
Created data processing pipeline and convolution neural network training for open-source package *mediapipe*; trained an American Sign Language alphabet model using 10+ youtube videos filmed from various angles; deployed the *Streamlit* application to read American sign-language in real-time.

SKILLS

Languages: Python, Java, C++, PostgresSQL, MongoDB, R, Spark
Applications: Numpy, Pandas, Seaborn, Scipy, Streamlit, Scikit-learn, Tensorflow, Snowflake, Qlik Sense, Arduino IDE
Communications: English (Native / Bilingual), Mandarin (Native / Bilingual), Spanish (Proficient)

TEACHING & HONORS

Carnegie Mellon University: VP of Finance & Outreach of User Experience Association(UXA), 2023-2024; Lead Mentor in Women in IS, 2023-2024; Principles of Computing Teaching Assistant, 2023; Student Body Vice President for Organizations (SBVPO), 2022-2023; University Leadership Student Advisory Council (ULSAC) 2022-2024