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-Present

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PROJECTS

Student Researcher(Fellowship), Carnegie Mellon University   *November 2022 - Present*
Preprocessed and explored the latent factors underlying classroom activity across 25+ STEM sessions. Applied open source deep learning facial recognition models to track students' identities and corresponding emotions. Embedded eye tracking features to cluster out attention motifs. Trained machine learning models and explored constituents of attention using SHAP, an explainable AI tool. Trained machine learning models and evaluated pitfalls for each classroom activity. Resolved data imbalances using techniques like ADASYN and SMOTE. Developed a web application for seamless CI/CD pipeline.

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.

End-to-end 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.

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, Ruby, HTML
Applications: Numpy, Pandas, Seaborn, Scipy, Streamlit, Scikit-learn, Tensorflow, Snowflake, Qlik Sense, Arduino IDE
Communications: English (Native / Bilingual), Mandarin (Native / Bilingual), Spanish (Proficient)

Honors/ Scholarships

Carnegie Mellon University: Small Undergraduate Research Grant ($500); 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