

Lucia Fang

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EDUCATION

Carnegie Mellon University

Bachelor of Science | Information Systems

CMU Dietrich College Dean's List with High Honors 2021-Present

May 2025

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 Innomatics

June 2023 - Present

Migrated data from SAP to Snowflake to improve cost-effectiveness. Developed 30+ SQL-based dynamic data visualization applications; engaged in multiple iterations of CI/CD pipeline to ensure development meets business needs.

Course Project | Full Stack, Carnegie Mellon University

January 2023 - May 2024

Designed and developed a crime tracking app using Ruby on Rails with MVC architecture and React. Implemented front-end with HTML, CSS, and JavaScript. Conducted testing with fabricated datasets.

Course Project | End-to-end Database Development, 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.

Course Project | Ubiquitous Computing, 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 - May 2023

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++, PostgreSQL, 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