Emily Xie

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Education

Carnegie Mellon University - Bachelor of Science in Information Systems   MAY 2025
Selected Coursework: Principles of Imperative Computation

Las Lomas High School - High School Diploma   MAY 2021
GPA: 4.0 | Selected AP Exams: Computer Science A
Awards: National Merit Scholarship Finalist

Skills

Programming: Python, Javascript, Matlab, R, Swift, Java, HTML, CSS, LaTeX

Experience

Visiting Scholar/Research Intern - UCSF Department of Radiology   JUNE 2021 - PRESENT
- Used computational techniques on large clinical dataset to find trends in knee meniscus shape and osteoarthritis.
- Programmed and documented MATLAB and R scripts to extract medical data and analyze statistical correlations.
- Presented findings at 2021 UCSF Summer Intern Symposium; first-authored submission for OARSI 2022 World Congress.
- Collaborated closely with two supervisors during daily and weekly meetings to ask questions, discuss research methods, and work through obstacles.

Research Intern - UCSF Department of Radiology   JUNE 2020 - AUGUST 2020
- Designed and programmed a data processing and machine learning pipeline to filter artifacts in magnetic resonance spectroscopic imaging (MRSI) of the brain.
- Learned how to utilize visualization and machine learning libraries in Python.
- Converted MATLAB scripts for reading medical files into Python scripts to aid lab's transition into Python.
- Showcased results at 2021 International Society for Magnetic Resonance in Medicine Exhibition and 2020 UCSF Summer Intern Symposium.

Projects/Activities

Music Mentors Club   SEPTEMBER 2018 - MAY 2021
- Founded club to connect high school music mentors to elementary/middle school students.
- Communicated with principals and district superintendent to advertise across five school districts in Bay Area.
- Connected over 40 students together in mentor-mentee relationship.
- Organized two online recitals to motivate music playing during COVID-19 pandemic.

Jazzcats!   MAY 2020 - AUGUST 2020
- Created an educational jazz music game using iOS frameworks and Firebase.
- Structured, drew, and published app as sole developer.
- Obtained app downloaded across 10 countries.

EverySecond   AUGUST 2019 - FEBRUARY 2020
- Developed an assistive technology in a team of three to help track seniors' daily activities.
- Brainstormed and finalized project architecture with IoT device, serverless cloud platform, object detection model, and web app.
- Presented business model for 2020 Conrad Challenge and 2020 Diamond Challenge.
- Earned Congressional App Challenge 1st Place Award.