emmaline.mai@gmail.com
(408) 886-0735

Emmaline Mai

http://emmaline01.github.io/

EDUCATION

Carnegie Mellon University May 2023
Pittsburgh, PA
- B.S. Computer Science, Minors in Robotics and Media Design
- GPA: 3.75
- Relevant courses: Parallel & Sequential Data Structures & Algorithms, Designing Human-Centered Software, Algorithm Design & Analysis, Functional Programming, Computer Systems, Theoretical Computer Science

Lynbrook High, Valedictorian June 2019
San Jose, CA

EMPLOYMENT

Automation Controls Engineering Intern Summer 2021
Tesla, Inc.
- Helped bring a pilot production line to the start of production by developing machine controls with PLC ladder logic, interfacing with the Manufacturing Execution System, and designing HMIs (Human-Machine Interfaces)

Teaching Assistant Spring, Summers 1&2 2020
CMU course 15-112: Fundamentals of Programming and Computer Science
- Worked with staff to teach recitations, labs, and review sessions, and hold office hours and hackathons
- Mentored 15 students through their term projects

Assistant Instructor Summer 2019
Galileo Learning
- Taught classes of 30 kids to make projects with 3D digital animation and IOS development

PROJECTS

Cardistry Dashboard 2021
Python (Flask), JavaScript (React), SQL
- Designed and managed a database hosted by Microsoft Azure to track cardistry (playing card flourishing) moves
- Built a Markov chain to generate suggested move combinations based on user-defined sequence parameters
- Developed a tutorial recommendation system based on moves currently learned using the YouTube Data API

ELM (Education, Learn, Motivate) app 2020
Java (Android Studio)
- Interfaced with a database for user accounts to eventually connect tutees and tutors through a video call session

SKILLS

Proficient: Python, C, Standard ML, ladder logic (Allen-Bradley), HMI programming (Ignition)
Basic: MATLAB, Java, C++, SQL

ADDITIONAL ACTIVITIES & AWARDS

Research Assistant 2020 - 2021
CMU Biorobotics Lab
- Ran experiments, presented work to the lab, and developed a directional compliance strategy for autonomous snake robot locomotion through 2D obstacles using MATLAB

Hardware Lead & Software Team Member 2019 - Present
CMU RoboClub
- Designing and building a robotically played ukulele using Arduino
- Processing data from computer vision for detecting tempo from human conducting

Mechanic 2019 - Present
CMU Sweepstakes Team
- Helping to construct new buggies (unmotorized carbon fiber vehicles) and maintain past buggies for races

Carnegie Mellon University School of Computer Science Dean's List Fall 2021, Fall 2019

NCWIT Award for Aspirations in Computing National Honorable Mention & Affiliate Award 2019