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, Imperative Computation, Functional Programming, Computer Systems, Algorithm Design & Analysis, Theoretical Computer Science, 3D Animation

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

Collaborated with instructors to teach kids to make projects with 3D digital animation and IOS development

PROJECTS

Cardistry Dashboard 2021

Python (Flask), JavaScript (React), SQL

- Tracks cardistry (playing card flourishing) moves learned in a database hosted by Microsoft Azure
- Generates suggested move combinations based on desired sequence parameters using a Markov chain
- Displays recommended tutorials based on properties of moves currently learned using the YouTube Data API

ELM (Education, Learn, Motivate) app

2020

Java (Android Studio)

Manages a database and instantly connects tutees with tutors for any subject 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

Developed a directional compliance strategy for autonomous snake robot locomotion 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 detecting 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