Jessalyn Wang

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EDUCATION

University of California, Santa Cruz

Sept. 2019 - Present

- Majors: Computer Science, BS | Business Management Economics, BA
- GPA: 4.0
- Club affiliation(s): NeuroTech, SASE, College Scholars Program

EXPERIENCE

Undergraduate Research Assistant, Tech4Good Lab

Sept. 2020 - Present

- Research the effects of and develop a production-ready web application for event scheduling
- In charge of implementing various UI components of the web application with one other partner
- Uses HTML, SCSS, and TypeScript to design and bind data to components in an AngularJS framework

Tutor, UCSC Jan. 2020 - Present

- Held tutoring sessions for UCSC's CSE30 and CSE12 courses
- Taught data structures, sparse arrays, stream averages and motion detection, expressions as trees and classes, machine learning, graphs, turtle graphics, PyOpenGL, SAT solving, digital logic, number systems, compiling/assembly process, basics of system software, and computer architecture
- Maintained a steady group of 20 25 students

SKILLS

Software: Python | C | C++ | HTML | SCSS | JavaScript | Bootstrap | PyTorch | Pandas | AngularJS | React | Git Coursework: Data Structures and Algorithms | Vector Calculus | Linear Algebra | Discrete Math | Embedded Systems

LEADERSHIP

Machine Learning Team Representative of NeuroTech Club

Aug. 2020 - Present

- Collaborate with team members to create a machine learning model for a project to be entered in the global NeuroTechX competition
- Communicate with the club officers and other teams to seamlessly mesh software and hardware into one device
- Direct a team of 5 people in an Agile environment by establishing deadlines, assigning tasks, following up on progress, and planning sprints

PROJECTS

Sudoku Solver

- Uses: Python
- A Sudoku class that solves 9x9 Sudoku puzzles using a backtracking algorithm

Subvocalized Speech Classification Device

- Uses: Python, PyTorch, sci-kit learn, Pandas, NumPy, OpenBCI, React, Flask
- Implements hardware from an OpenBCI kit to detect EMG signals from subvocalized speech and classify them as words
- Personally developed a model using Convolutional Neural Networks that successfully classifies between "yes" and "no" to 90% accuracy on only 14 minutes of data

Education Atlas Foundation

- Uses: HTML, Python, CSS, JavaScript, Flask, AWS
- A website for a non-profit organization founded by myself and 4 other peers, designed to provide free counseling to high school students
- Is written primarily in HTML, CSS, and JavaScript, hosted in an AWS S3 bucket and uses a Flask pipeline to communicate with a database hosted on an AWS EC2 instance