Joseph Tan

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Education

Stanford University

California

B.S. Computer Science

Sept. 2020 - May 2024(Expected)

• GPA - 3.91/4.0

Coding Projects

Automated Jazz Backing Track Generator | C++, Context-Free-Grammars, Audio File Generation

- Developed Context-Free-Grammar based music generation system
- Implemented grammar reader, music generation logic, and music-specific data structures

Fantasy Premier League(FPL) Team Generator(Work in Progress) | Python, Data analysis, Linear program

- Built a FPL team generator predicts which soccer players will perform well and assembles a team of 15 players with constraints
- Developed custom algorithm to model and predict the results of soccer matches and player performances using data directly drawn from the official FPL api.
- Used linear programming to assemble the optimal team from predictions.

Experience

Research Assistant

June 2017 - August 2017

UCLA Micro and Nano Manufacturing Lab

UCLA, California

- Built custom high-resolution DXF to PDF file converter for laboratory website
- Developed software to interact with boat speedometer

Extracurriculars

Founded Robotics Team

VEX Robotics

- Started VEX High School Robotics Team
- Taught STEM skills(coding, applied physics, etc) to high school students
- Designed <u>website</u>, fundraised, organized competition enrollment, ensured robot would be completed in reasonable timeframe

Relevant Coursework

Stanford University

Sept. 2020 - Present

Courses

- CS 106B(A-): Programming Abstractions C++, Recursion, Data Structures, Object Orientated Programming
- CS 103(A): Mathematical Foundations of Computing Discrete Mathematics, Formal Language Theory, Finite Automata, Regex, Complexity Theory
- CS 107E(In Progress): Computer Systems from the Ground Up Bare metal programming, ARM Assembly, C, I/O, Computer Arithmetic,

Skills

Languages: Python, C++ Developer Tools: Git