

JOSEPH TAN

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Education

Stanford University

B.S. Computer Science

- GPA – 3.91/4.0

California

Sept. 2020 – May 2024(Expected)

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

- Built a FPL team generator - predicts which soccer players will perform well and assembles a team of 15 players with constraints
- Scraped fplpreview.com for player statistics, accessed the official FPL API to supplement with more data, used Linear Programming to build optimal team under game-imposed constraints, and used Genetic Algorithm to make changes to team throughout season

Experience

Research Assistant

UCLA Micro and Nano Manufacturing Lab

June 2017 - August 2017

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 [website](#), fundraised, organized competition enrollment, ensured robot would be completed in reasonable timeframe

Relevant Coursework

Stanford University

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,

Sept. 2020 - Present

Skills

Languages: Python, C/C++

Developer Tools: Jupyter Notebook, Git