

Joseph Tan

🌐 www.dghosef.me | ✉ jdtan638@gmail.com | in [dghosef](#) | 📷 [dghosef](#) | ☎ 626 693 6386

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, Data analysis, Linear programming*

- 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

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,

Skills

Languages: Python, C++

Developer Tools: Git