

EDUCATION

California State University, Fullerton

Bachelor of Science in Computer Science, 2022 - 2024 (Expected)

GPA: 3.73

EXPERIENCE

Substitute Teacher | The Education Team

May 2024 - Present

- Conducted daily lessons and managed classroom dynamics in the absence of regular teachers, ensuring a smooth learning experience for students.
- Collaborated effectively with school staff to address concerns and resolve issues, emphasizing open communication and problem-solving.

PROJECTS

Spotify Mood Analyzer (React.js, Tailwind CSS, Node.js, Express, MySQL, SpotifyAPI)

- Developed a full-stack React application with Tailwind CSS for the front-end, utilizing Node.js and Express for the backend, and MySQL for database management.
- Integrated Spotify API to fetch users' recently played songs, analyzing and calculating metrics like valence levels and acousticness to assess and display their mood trends over time.
- Implemented d3.js for dynamic data visualization, creating interactive graphs to effectively represent mood variations based on the musical attributes of the user's listening history.

Compiler (Python, Rat24S)

- Developed a Compiler in Python for parsing Rat24S (course specific language) source code, utilizing Finite State Machines to accurately identify and categorize tokens such as keywords, identifiers, integers, and real numbers based on predefined sets of rules and transitions.
- Engineered state transition systems for the analyzer, enabling skipping of comments and the handling of complex lexemes, including compound operators and varying token types, ensuring error handling for invalid tokens.
- Designed and implemented a Syntax Analyzer and Intermediate Code Generator (ICG) module to process parsed tokens from the Lexical Analyzer, constructing abstract syntax trees (ASTs) for Rat24S grammar rules, validating code structure, and generating intermediate code instructions that serve as a bridge to low-level assembly programming.

PDF Page Merge/Separate App (Python)

- Developed a user-friendly PDF Splitter and Merger app using Python and Tkinter for splitting specific pages and merging multiple PDF files.
- Implemented intuitive GUI with interactive prompts, ensuring error-free file selection and accurate page specifications.
- Enhanced user productivity by simplifying PDF manipulation processes and enhancing note-taking efficiency.

TECHNOLOGIES AND LANGUAGES

- C++, Python, JavaScript, Typescript, React, Node.js, MySQL, HTML, CSS, Tailwind CSS
- Git, npm, Linux, Windows, macOS