Yu-Heng Lin

github

EDUCATION

University of California, San Diego

B.S. ECE: Computer Engineering — *Expected to Graduate in June 2026*

Pasadena City College

A.S. Electrical Engineering — *Transferred out in 2024*

Related Courseworks

Courses: Intro to programming, OOP, Data Structures, Circuit Analysis, Digital Logic Design, Intro to Embedded System, Linear Algebra, Discrete Math

Skills

Languages: C, C++, Python

Technologies: Arduino, Git, Linux, Makefile, CMake, Vim

PROJECTS

SQL(A Mini RDBMS Built in C++) Github

- Supported common SQL syntax like select, insert, and create.
- Capable of perform complex SQL select queries in short time.
- Supported persistent storage implemented using binary file IOs.
- Supported prefix selection query using Trie data structure.

Arduino Digital Clock Github

- A digital clock built using the Arduino MCU, it implemented embedded system concepts like digital/analog IO, interrupts, and debouncing techniques.

Little Test Framework (A Light Weight C++ Testing Framework Github

- Utilize the Singleton Design Principle and C++ macros for test discovery, organization and execution.
- Packaged the project into an easy to integrate CMake Library.
- Implemented intuitive and useful features such as timing, test-skipping, and execution reporting.

GraphX (A In-Memory Graph Storage) Github

- A Python based graph storage that facilitate the representation of complex relational queries.
- Built with zero dependencies and is easy to integrate to project.
- Provides intuitive, efficient, and complex chain queries APIs for users.

Volunteer Experience

CCHCLA — **San Gabriel, CA**

Web Admin — *Dec 2021 - Mar 2022*

- Managed and enhanced a wordpress high-trafic website
- Employed internal tools for data backup and preservation