Alexander Martinez

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My GitHub • Alexander.github.io • My LinkedIn

EDUCATION

California State University Fullerton | Bachelor of Science in Computer Engineering Expected Graduation Spring 2026

SKILLS

C++ | Linux | Windows | Git | VS Code | VHDL | Multisim | Vivado

PROJECTS

Doubly Linked List - C++ - - DoublyLinkedList.hpp October 2023

- The Doubly linked list is constructed of three classes its Doubly Linked List, Node, and Iterator.
- Conforms to the appropriate Big O complexity.

Hash Table - C++ - - HashTable.hpp December 2023

- Implemented a dynamic-capacity Hash Table that uses separate chaining.
- Used a modified version of the Mid Square Hash to convert the key into a number.

Multiplexer - VHDL - - Multiplexer Binary to Hexadecimal.pdf December 2023

- Implemented a Multiplexer that converts Binary to Hexadecimal using a seven segment display.
- Created a Multiplexer for A through DP then made a Mux Port Map for each one and displayed it on an Artix 7 FPGA board.

EXPERIENCE / INTERNSHIPS

Cashier July 2022 - October 2023
Pronto Cafe

- Serve as a barista, cashier and other responsibilities.

Intern May 2023
ASSURE-US Summer Research - - Presentation

- Conducted research in the fields of power electronics and circuit simulation to to increase the efficiency of voltage multiplier circuits and their integration with DC to AC converters like the Cockcroft-Walton Multiplier.

Intern January 2024 - May 2024
Edison STEM-NET Student Research - - Research Proposal

- This research will pave the way for the development of smarter, AI-driven solutions to optimize motor operations and significantly reduce GHG emissions in industrial applications.
- I will test how different machine learning regression models enhance the accuracy of predicting excitation current in AC synchronous machines.