

## Education

### University of California, San Diego

09/2017 – 06/2021

- B.S. Computer Engineering Major GPA: 3.389
- Relevant Courses: Microelectronic System Design (VLSI Design Flow), Principles of Computer OS, Intro to Linear and Nonlinear Components and Circuits (Diodes, BJTs, MOSFETs)

## Experience

### UCSD CSE 110 (Scriptor) | User Interface Specialist

03/2019 – 06/2019

- Emulated the workflow and use of Agile methodologies of a project team at a software company for a 10-week period.
- Designed and developed the front-end of the Scriptor web application which was voted as the best project of the quarter.
- Presented new ideas and changes at bi-weekly team meetings and weekly customer meetings.
- Collaborated with various positions on the team to further improve UI (Project Manager, Business Analyst).

### Cowelco Steel Contractors | Intern

07/2016 – 08/2016

- Examined company workflow by participating in weekly meetings.
- Cooperated with many positions throughout the company to improve data management.
- Logged data onto spreadsheets to reduce paper usage and increase storage space.

## Skills

- Proficient in RTL design and optimization (Verilog, SystemVerilog)
- Experienced with soft processor design
- Strong knowledge of computer architecture
- Proficient in C, C++ programming with exposure to Python
- Knowledgeable of various communication interfaces (UART, SPI, I2C, AXI)
- Exposure to analog design and signal processing
- Fluent in English and Japanese

## Projects

### Superscalar Processor Design | UCSD Advanced Processor Architecture Design Course

03/2021 – 06/2021

- Optimized a basic processor design with improved branch prediction, hardware prefetching, value prediction, and 2-way superscalar execution
- Achieved an average 1.44 speedup over the baseline design

### FPGA Bitcoin Block Hashing Accelerator | UCSD Advanced Digital Design Course

02/2021 – 03/2021

- Implemented and optimized the Bitcoin block hashing algorithm in SystemVerilog for latency, throughput, area \* latency

### Posture Correction Device + App | UCSD IEEE Quarterly Project

01/2018 – 03/2018

- Developed a posture correction device and app as part of the IEEE Quarterly Projects Winter 2018: Health competition
- Wrote parts of code for the Arduino Uno to communicate with the MPU-6050 gyro + accelerometer and helped design the companion app

### FPGA Infrared Remote Calculator | UCSD Introduction to Digital Design Course

09/2017 – 12/2017

- Implemented a simple calculator that uses an infrared receiver for inputs from a SONY TV remote and displays the result on a 7-segment display in Verilog.