Triston J Babers

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SUMMARY

Excels at working on complex systems with skills honed through developing many applications. Strives methodically for efficient and maintainable software solutions that eliminate technical debt.

EDUCATION

University of California San Diego, La Jolla, CA
B.S., Computer Engineering

- **GPA:** 3.73 **September 2020 – June 2024**

TECHNICAL SKILLS

Languages: C, C++, Cuda, SystemVerilog, HTML5, JavaScript, CSS, C#, SQL, Python, Java, Bash
Tools: SSH, GDB, Docker, Junit, Jest, Valgrind, ModelSim, Intel Quartus, CI/CD, Node.js

PROJECTS

Relational SQL Database

- Created a relational SQL database in C++ capable of creating new databases, tables, schemas, and rows; as well as selecting, updating, and joining existing rows within the database.
- Developed a flexible system that maximizes code reuse, and allows for different ways of viewing the output displayed by a command in adherence to the MVC design pattern.

RLC Solver github.com/TristonBabers/RLC_Solver

- Created a website application that allows users to construct and solve RLC circuits.
- Designed an algorithm that postpones computation to the front-end, which allows component values to change without resending a network request to the server.

Floating Point Convertor github.com/TristonBabers/Floating-Point-Convertor

- Used SystemVerilog to develop an ASIC circuit description that converts a 32-bit value into the IEEE-754 floating-point number it represents.
- Enabled flexibility by allowing the precision of the output to adjust itself according to the display size.

EXTRACURRICULAR ACTIVITIES

Student Cluster Competition 23

- Competed as a member of the UCSD Travel Team which achieved 3rd place overall.
- Optimized High-Performance Linpack for a multi-node, multi-GPU supercomputing cluster with 3 nodes and 9 AMD Instinct 200 GPUs.
- Diagnosed and solved problems with the supercomputer in order to achieve efficient runtimes.