Rose Epstein

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TECHNICAL SKILLS

Programming Languages: C / C++, VHDL, Haskell, Assembly, SQL
Tools, Frameworks & Technologies: Linux, Git, VS Code, LT Spice, Atmel Studio, Quartus/Modelsim, macOS, Windows
Linux: Admin, Bash, Kernel Config, Package Mgmt (APT, YUM), Networking, UFW/iptables, FS Mgmt, cron, SSH
Relevant Courses: Embedded Systems, Digital Systems Design, Fundamentals of Digital Logic and Design

WORK EXPERIENCE

Application Engineer **Jan — Apr 2022**
Epic Semiconductors Vancouver, BC

- Designed and executed experiments for process and product development, including assembling, testing prototypes and analyzing PCB circuits.
- DSuccessfully executed a heart-shaped PCB project to completion used in client demonstrations.

PROJECT EXPERIENCE

Gaussian Elimination Kernel FPGA Optimization: **Spring 2023**

- Coordinated with a group of four to implement an FPGA acceleration project on the Gaussian Elimination kernel from GPU benchmark suite Rodinia using High-Level Synthesis (HLS) C++.
- **Optimized the data transfer** between the host and FPGA with memory coalescing optimizations

Customized UART Protocol in an FPGA: **Summer 2023**

- Coordinated with a group of two to design, implement, and optimize a UART protocol in VHDL on the FPGA board.
- Implemented the transmitter component to send data serially to the receiver, and extensively tested the entire system with a testbench using ModelSim.

Beaglebone Beatbox Analyzer: **Fall 2022**

- Coordinated with a group of two to develop a drumbeat beatbox program on the Beaglebone
- Implemented a user interface featuring a button interface for selecting different drum beat sequences and triggering individual beats.

EDUCATION

Simon Fraser University **Fall 2020 — Present**
B.A.Sc. Computer Engineering Burnaby, BC

- ***Computing Science Minor***

University of Saskatchewan **Fall 2016 — Summer 2020**
B.Sc. Physiology and Pharmacology Saskatoon, SK

- ***Graduated with great distinction***

LEADERSHIP EXPERIENCE

Co-President **May 2022 — 2023**
Women in Engineering (WiE) Burnaby, BC

- Lead the Women in Engineering club in providing programs, supports and opportunities forunderrepresented students in engineering