

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

Relevant Courses: Embedded Systems, Digital Systems Design, Fundamentals of Digital Logic and Design, Advanced Digital Systems

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.
- Successfully 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 for underrepresented students in engineering