

Hudson Dalby

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EDUCATION

Master of Science: Computer Engineering with Deep Learning Certificate
Bachelor of Science: Computer Engineering with Mathematics Minor
University of Utah, John & Marcia Price College of Engineering

Salt Lake City, UT
Anticipated December 2027
Concurrent

Related Coursework

Algorithms, Computer Systems, Computer Organization, Calculus, Digital System Design, Circuits and Systems

TECHNICAL SKILLS

Programming Languages: C++, Java, Python, C

Technical Skills: GitHub, SQL, MATLAB, Intel Quartus, Operating Systems, CSS

TECHNICAL PROJECTS

Memory Allocator – C, SSH

March 2025 – April 2025

- Developed a dynamic storage allocator with a focus on space utilization and throughput.
- Wrote functions that allocate and free a block of requested byte size, returning a 16-byte aligned pointer.
- Included features such as 8-byte header & footer, block coalescing and splitting, an explicit free list, un-mapping unused page chunks, and heap consistency checker.

4-Bit Computer – Verilog, FPGA, Intel Quartus

November 2024

- Designed the control unit given a data path definition and tested with FPGA board.
- Wrote Verilog code to implement logic gates and sequential circuitry to meet provided expectations.
- Uploaded the design to an FPGA board and wrote testbench code to verify correctness.
- Created a finite state machine that transitions based on input switches and internal clock speed of the FPGA board.

Amplifier Design – PSPICE

October 2024 – December 2024

- Designed and built BJT and MOSFET amplifiers for use in a microphone circuit.
- Used PSPICE to construct a circuit schematic with appropriate component values for a 15V power supply.
- Simulated circuit behavior to ensure correct response throughout an appropriate range of frequencies, built the circuit based on the designed schematic and verified behavior via oscilloscope measurements.

EXPERIENCE

Domino's Pizza

Riverton, UT

Delivery Driver

June 2023 – August 2024

- Ensured a positive customer experience for customers and made deliveries in a timely manner.
- Responsible for handling cash and credit transactions.

Walmart Neighborhood Market

Riverton, UT

Online Order Fulfillment

January 2022 – May 2023

- Ensured accurate fulfillment and quick dispensing of online orders.
- Responsible for organization of pending orders, merchandise stocking and inventory.