Ben Hyman

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EDUCATION

ROCHESTER INSTITUTE OF TECHNOLOGY

Bachelors of Science, Computer Engineering with Microelectronics Engineering Minor
GPA: 3.93
Graduation: Expected May 2024

AVAILABILITY

January - August 2023

COURSEWORK

Real Time & Embedded Systems
Interface and Digital Electronics
Digital Signal Processing
Digital Systems Design I/II
Applied Programming in C
Computer Architecture
Computer Organization
Assembly & Embedded Programming
Digital Electronics
Intro. to Semiconductor Devices

SKILLS

PROGRAMMING

VHDL
C / C++
ARM Assembly
Python
LaTeX

SOFTWARE TOOLS

Altium Designer
Orcad
Xilinx Vivado
Altera Quartus II / ModelSim
LTSPICE
Git
Keil
VSCode

HARDWARE

Oscilloscope
Waveform Generator
Multimeter
Power Supply
Soldering Iron
Arduino / Teensy
Raspberry Pi

EXPERIENCE

HARDWARE ENGINEERING CO-OP

D3 Engineering
January 2022 - August 2022 | Rochester, NY

- Performed high speed schematic and layout hardware design for multiple customer projects using Altium and Orcad.
- Participated in design reviews to identify potential problems and improvements in other engineers' designs.
- Assisted in debugging and failure analysis of malfunctioning boards.

SOFTWARE ENGINEERING INTERN

Volvo Group
May 2021 - August 2021 | Hagerstown, MD

- Performed hardware-in-the-loop testing and verification on new release candidates for multiple different engine softwares.
- Designed and created new automated tests and hardware to support more sensors and actuators.
- Discovered a calibration issue in the newest engine software and helped take steps to resolve it.

PROJECTS

DARWIN POWER DISTRIBUTION BOARD

October 2021 - June 2022

- Designed a custom power distribution board for the payload of RIT Launch's rocket in the 2022 Spaceport America Cup using Altium.
- Could wirelessly activate the video subsytem before launch over 900MHz to mitigate its heavy power consumption.
- Successfully performed its function during the competition.

NIXIE TUBE CLOCK

February 2021 - Present

- From scratch, designed and built a clock that displays the time using eight IN14 nixie tubes.
- Used KiCAD to design a PCB to mount and connect all components.
- Designed a v2 of the PCB using Altium that features improvements and bug fixes over the original.

MIPS MICROPROCESSOR

January 2021 - May 2021

- Created a pipelined MIPS microprocessor using VHDL as a part of Digital Systems Design II.

ORGANIZATIONS

RIT LAUNCH INITIATIVE

Avionics Lead | June 2022 - Present | Rochester, NY

- Responsible for overseeing the avionics subteam, which involves all electrical and software projects on the team.
- Designing a modular backplane-style flight computer for the 2023 Spaceport America Cup.

Avionics Team Member | August 2021 - June 2022 | Rochester, NY

- Designed and tested the electrical subsystems of RIT Launch's competition rocket as a part of the 2022 Spaceport America Cup.
- Particpated in and presented design reviews to senior members and advisors.