

# Ben Hyman

bch2857@rit.edu | 17 Lincoln Road North, Plainview, NY 11803 | 516-434-9857

## 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 System 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  
GitHub  
Keil  
VSCode

### HARDWARE

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

## EXPERIENCE

### HARDWARE ENGINEERING CO-OP

#### D3 ENGINEERING

January 2022 - August 2022 | West Henrietta, 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 designs.
- Assisted in debugging and failure analysis of malfunctioning boards.

### SOFTWARE ENGINEERING INTERN

#### VOLVO GROUP

May 2021 - August 2021 | Hagerstown, MD

- Performed testing and verification on new release candidates for multiple different engine softwares.
- Designed and created new 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

### 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.
- Designed and synthesized each component, such as the ALU, Register File, Memory, and Control Unit.

## ORGANIZATIONS

### RIT LAUNCH INITIATIVE

Avionics Lead | June 2022 - Present

August 2021 - Present | Rochester, NY

- Designed a custom PCB to wirelessly activate a rocket video subsystem that functioned as expected during flight in the 2022 Spaceport America Cup.
- Currently working on a modular backplane-style flight computer for the 2023 Spaceport America Cup

### ENGINEERING HOUSE

August 2019 - Present | Rochester, NY

- As an upperclassman, supported freshmen and helped them with whatever problems they may have, school-related or otherwise.

### POBOTS FIRST ROBOTICS TEAM

September 2015 - June 2019 | Plainview, NY

- Head of the electrical team which designed and maintained the electrical systems of the robot.