Evan Humphrey

Morgantown, WV • +1-304-621-2506 • evn.humphrey@gmail.com • emh140.github.io

Education

West Virginia University

Morgantown, WV

B.S. Computer Science - AoE in Cybersecurity, B.S. Computer Engineering, B.S Electrical Engineering

Spring 2027

GPA: 3.91

Relevant coursework: Digital Logic Design, Microprocessor Systems, Operating Systems, Intro to Software Engineering, Digital Electronics, Electrical Circuits 1 & 2, Signals and Systems 1, Data/Computer Communications, Secure Software Development, Host-Based Cyber Defense

Experience

CS450: Operating Systems - Teaching Assistant

Morgantown, WV

West Virginia University

August 2025 - Present

• Held weekly office hours, helping students debug kernel-level code and understand complex OS concepts
• Collaborated with course instructor to develop and improve class materials
• Mentored students by helping them write C and Assembly for low-level system programming

Eugene V. Cilento Engineering Learning Center - Tutor

Morgantown, WV

West Virginia University

August 2025 - Present

• Assisted students across a wide variety of course subjects and concepts including math, physics, computer science, and engineering fundamentals
• Collaborated with other tutors to manage the flow and demand of students attending the learning center
• Wrote detailed reports after meeting with students to keep comprehensive records on study habits for instructor use
• Worked with students to develop an understanding of the course material by leveraging past experience and records with each subject

Cashier

Morgantown, WV

Kroger

May 2025 - Present

• Collaborated with other team members to expedite front-end operations and reduce customer wait times
• Handled high-volume transactions with speed and accuracy during peak shopping hours
• Resolved customer concerns efficiently and professionally, maintaining company standards

Projects

PALFA Radio Pulsar Survey Data Collection

Spring 2023

- Organized a large data set of radio pulsar signals from Arecibo Observatory using Java
- Accounted for error in the data set to minimize potential outliers
- Used various searching and sorting techniques to compare various timings of differing organization methods

EZMeal

Spring 2024

- Organized and led a group of students to create a website focused on recipes and cooking
- Led the backend optimization and creation team to launch a database admin panel
- Utilized phpMyAdmin hosted on an AWS EC2 instance for database management
- Gained experience in database management and creation as well as basic SQL querying calls

Simple CPU Design

Spring 2024

- Designed a simple 8-bit CPU that is equipped with 8x32 byte main memory
- Programmed in VHDL
- Implemented on an Intel DE-10 Lite FPGA Board using Intel Quartus Prime

Temperature Monitoring System

Spring 2025

- Built a temperature monitoring system using TI microcontrollers with ADC and UART
- Developed real-time control logic with LED state indicators and interrupt-driven operation
- Created a serial interface to receive temperature values from temperature board to controller for visual monitoring

MPX: Linux-based Operating System

Spring 2025

- Gained hands-on experience with hardware-software interfacing and low-level I/O operations
- Applied operating system concepts by developing a modular OS with standard kernel features
- Automated the build process with Makefiles and leveraged GDB for low-level kernel debugging

Variable Speed CPU Clock

Summer 2025

- Implemented a basic CPU clock that can achieve speeds of up to 10MHz
- Created using rudimentary components like resistors, capacitors, and inductors
- Also utilizes various ICs to achieve normal (clock-like) functionality as well as manual operation

Arduino EEPROM Programmer

Summer 2025

- Used to program EEPROM memory on small microprocessor chips
- Arduino drives functionality using C code to transfer digital signals into a shift register to store large sets of binary values
- Used Arduino to identify and interface with assigned memory to modify values stored in the chip

Activities

WVU AI Club

Fall 2022 - Present

- Club focused on educating students about artificial intelligence and its applications in industry

WVU IEEE Beta Rho Chapter

Fall 2023 - Present

- Club focused on Electrical/Computer Engineering
- Concentrated on creating and supporting students to build skills through personal/club projects

WVU Amateur Radio Club

Fall 2024 - Present

- Club focused on educating students on amateur radio and its applications

Additional

Licenses: Amateur Radio Licensee: KF8DUQ (General License)
Hardware: Intel DE-10 Lite, Raspberry Pi, TI Tiva C, many ICs
Software: VSCode, Intel Quartus Prime, Keil IDE, LTSpice, Microsoft Visual Studio, KiCAD
Languages: C, Java, VHDL, ARM Assembly, HTML, CSS, Python, MATLAB
Dean's List Scholar: Fall 2022, Spring 2023
President's List Scholar: Fall 2023, Spring 2024, Fall 2024, Spring 2025
Interests/Hobbies: Computer Building, Programming, Hammocking, Hockey, Video Games