

Alexander L. Freel

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Education: Bachelor of Science, Computer Engineering GPA: 3.11

Rose-Hulman Institute of Technology, Terre Haute, IN

Related Courses: DC Circuits, AC Circuits, Signal Processing, Embedded Systems, Digital Systems, Continuous Time Signals and Systems, Electronic Device Modeling, Object Oriented Software Development, Data Structures, Computer Architecture.

Skills: Software: Java, HTML, CSS, Python, C, Verilog

Systems: Windows, Macintosh, Linux

Hardware: MSP432 Microcontroller, Oscilloscope, Logic Analyzer

Experience: Cybersecurity & Systems Intern — Edelman Financial Engines 2025

- Supported vulnerability management by identifying, assessing, and documenting system weaknesses, contributing to improved organizational security posture
- Applied and verified critical security updates and patches, including Samba configurations and Windows BitLocker encryption policies, ensuring compliance with best practices
- Collaborated with IT team members to develop and implement system hardening strategies, enhancing infrastructure resilience and mitigating risks across enterprise systems

Freelance Website Design 2024

- Built personal website to secure design contracts, using HTML, CSS, and JavaScript
- Designed responsive, user-friendly sites with intuitive interfaces and engaging visuals
- Created animations and interactive effects to enhance user experience

Projects: ECE Team Project

- Implemented photoresistor, line sensor, and IR sensor to learn how to automate a robot's movement on a track
- Helped develop C code for the software that guided the robot sensors

Coding Game from Scratch in Java: (Bonfire)

- Coded enemy tracking movement, collisions, an automated scoring system, and hero movement
- Used Refactoring and Interfaces in order to have code that reflects polymorphism
- Learned how to use try and catch blocks for exception handling in order to keep the program running even if there are errors

Coding Game from Scratch in Python: (Worlds Hardest Game Replica)

- Coded boundaries, Coins, player movement, obstacles, and interactions
- Practiced using coding techniques and organization that optimized the game

Virtual Machine

- Took steps in learning the art of virtualization
- Created a virtual machine using VMware that allowed me to access a fully functional Linux Computer from my current windows computer

Digital Systems Lab Projects 2024–2025

- Programmed MSP432 microcontroller to interface with LCD, servo, and stepper motors.
- Developed RISC-V assembly programs for algorithms such as Fibonacci and array manipulation
- Implemented Butterworth and Chebyshev filters in MATLAB for signal analysis.
- Designed UART-based communication protocols for peripheral control

Activities and Leadership:

Rose Hulman 2025–Present

- Baseball Team

Volunteer Youth Baseball Coach — Flint Hill 2021–2022

- Mentored young players to develop both technical skills and teamwork