

LUKE BUCHANAN

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EDUCATION

Bachelor of Science in Computer Science
Rose-Hulman Institute of Technology, Terre Haute, IN
Status: *Sophomore*

May 2026
GPA: 3.89

Relevant Courses:

- Calculus I-III, Linear Algebra and Differential Equations
- Object-Oriented Programming, Data Structures & Algorithm Analysis
- Computer Architecture, Web Programming, Practical Computer Security

TECHNICAL SKILLS (BY FAMILIARITY)

- *Proficient:* Java, C, Python, Git, GNU / Linux, Windows
- *Acquainted:* Assembly (ARM & RISC-V), JavaScript, HTML, CSS
- *Familiar / Learning:* Verilog HDL, Rust, C++

PROJECTS

FPGA Logical Microprocessor

April — May 2023

- Designed a logical processor that runs an interactive game on 7-segmented displays
- Implemented this processor on an Altera FPGA using Intel Quartus Prime and Verilog HDL

Java Arcade Game Development

January — February 2023

- Developed a playable 2D game based on the arcade game *Joust* after planning in UML
- Implemented game physics, collision, and rendering in Java using AWT and Swing
- Participated with team of 3 in an iterative development process with peers to enhance and refine a well-structured class hierarchy

ACTIVITIES AND ACHIEVEMENTS

Computer Security Club: *Team member*

August 2023 — Present

- Engaged in challenges such as CTFs in order to learn more about computer security
- Investigated new and interesting cybersecurity technology and their applications

Dean's List: *Freshman Year, All terms*

November 2022 — May 2023

OUTSIDE WORK EXPERIENCE

True Food Kitchen: *Walnut Creek, CA*

June — August 2023

— *Dishwasher*

Fuddruckers: *Concord, CA*

February — August 2022

— *Cashier*