

Ishaan Salian

isalian@umass.edu | (413) 430-9306

Analytical thinker skilled in Python, C, and Embedded Systems. Computer Engineering Junior with a track record of project success and effective leadership.

Education

University of Massachusetts Amherst

Bachelor of Science in Computer Engineering

Anticipated May 2025

Awards: Chancellor's Award, Dean's List

Courses: Security Engineering, Data Structures, Embedded Systems, Systems Programming & Hardware Organization

Skills

Python, Java, C, Arduino Uno, BeagleBone, Raspberry PI, Linux, Shell Scripting, Verilog, RISC-V, LaTeX, MATLAB

Projects

Student Design Team - ASME UMass

September 2023 - Present

- Implementing Arduino Uno to make a mini golf robot for the 2024 ASME Student Design Competition.
- Employing advanced engineering principles, and effective teamwork to ensure the successful testing of the robot.

keyRING, A Smart Key Holder - HackUMASS XI

November 2023

- Designed a system that reminds the user to take their keys using a sonar sensor and a spring-like mechanical switch.
- Programmed the ATmega328P using C to calculate distances and communicate with the switch for key detection.
- Awarded "Cheapest Hardware Hack" for a cost-effective design while achieving project goals.

Hybrid Encryption and Decryption

October 2023

- Developed a hybrid encryption scheme combining RSA and DES algorithms for secure image transmission.
- Utilized Python scripting on a LINUX operating system for DE1-SoC FPGA for encryption and decryption tasks.
- Successfully integrated the two encryption schemes, achieving full key recovery and image decryption.

HR sorter

September 2023

- Developed a bash script to automate the ordering of resumes based on predefined keywords and weights.
- Ensured accurate keyword matching by implementing a case-insensitive approach and accounting for word variations.
- Successfully tested against diverse input scenarios, ensuring accurate sorting results and meeting expected outcomes.

Space Shooter Emulator

February 2022

- Designed a space shooter game in Python filled with enemy targets and a score-tracking system.
- Applied concepts of Object-Oriented Programming such as multiple classes, instance variables, and inheritance.
- Implemented targets with varying movement patterns using the Tkinter module.

Work Experience

Office of Student Affairs, University of Massachusetts Amherst

Amherst, MA

Student Tutor

August 2023 - Present

- Provided tutoring and academic support for MATLAB and Python to a diverse range of engineering majors.
- Cultivated an inclusive environment for students to feel comfortable seeking assistance.
- Adapted to students' varying learning styles and levels of proficiency to tailor explanations to individual needs.

New Student Orientation and Transitions, University of Massachusetts Amherst

Amherst, MA

Orientation and Transitions Leader

March 2023 - Present

- Led over 20 student groups, tours, and presentations, both in-person and online, fostering student connections.
- Mentored a cohort of over 600 incoming students, contributing to their successful adjustment to university life.
- Proficiently utilized Salesforce to expedite communication by emails and phone calls.

Activities & Interests

Certified Junior Scuba Diver, Swimming, Photography.