Ishaan Salian

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Analytical thinker skilled in Python, C, and Embedded Systems, willing to learn new languages and technologies. Computer Engineering Junior with a track record of project success and effective leadership.

EDUCATION

University of Massachusetts Amherst **Amherst, MA**

Bachelor of Science in Computer Engineering *Expected May 2025*

- **Awards:** Chancellor's Award, Dean's List
- **Relevant Coursework:** Hardware Organization, Modelling and Verification of Embedded Systems, Security Engineering, Systems Programming, Reverse Engineering, Vulnerability Analysis Data Structures & Algorithms

SKILLS

Languages: Python, Java, Embedded C, RISC-V, MATLAB, Assembly, Verilog, VHDL, HTML

Technologies: Arduino, BeagleBone Black, Bare ATmega328P, Ghidra, KiCad, DE-1 SoC, Unix, Linux, Cryptography, Shell

Others: MS suite (Word, Excel, PowerPoint), Soldering, LaTeX, Certified Junior Scuba Diver, Swimming, Photography

PROJECTS

Student Design Team - ASME UMass | Arduino Uno, Embedded C **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.

TravelTime, Real-time Bus Information Display - Hack(H)er413 | Arduino Mega, ESP8266 **February 2024**

- Developed a system that displays transit information by utilizing public transit API.
- Integrated Arduino Mega and ESP8266 using serial communication for real-time bus updates.
- Implemented 7-segment displays for timings and an LCD screen for clear presentation of bus information.

keyRING, A Smart Key Holder - HackUMASS XI | Arduino Uno, Embedded C **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 | Linux, Python **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 | Bash **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 | Python **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

College of Engineering, 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.
- Adapted to students' varying learning styles and levels of proficiency to tailor explanations to individual needs.

Career Services Advisor *August 2023 - Present*

- Offered comprehensive career advice to students, guiding them through internship and full-time job searches.
- Provided walk-in assistance in crafting compelling resumes and cover letters, resulting in increased applicant success.

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.