Ishaan Salian

📞 413-430-9306　✉ isalian@umass.edu　in linkedin.com/in/ishaan-salian

Detail-oriented and adaptable Computer Engineering senior, proficient in Python and C, with a keen interest in embedded systems and PCB design. Seeking opportunities leveraging skills in dynamic engineering environments.

Education

University of Massachusetts Amherst　　　　　　　　　　　　　　　**Amherst, MA**
Bachelor of Science in Computer Engineering　　　　　　　　　　　**Expected May 2025**
- **Awards:** Chancellor's Award, Dean's List
- **Coursework:** Hardware Organization & Digital Design, Modeling and Verification of Embedded Systems, Security Engineering, Systems Programming, Reverse Engineering, Vulnerability Analysis, Data Structures & Algorithms

Technical Skills

Languages: Python, Java, Embedded C/C++, RISC-V, MATLAB, Assembly, Verilog, VHDL, HTML
Technologies: Arduino, BeagleBone, ATmega328P, Wonderware, Altium, KiCAD (PCB design & schematics), Unix, Linux
Others: Soldering, Multimeters, Oscilloscopes, Quartus Prime, SPICE, GPIO, ADC, I2C, SPI, UART, Fusion 360, Git, Shell

Experience

Coherent Corp.　　　　　　　　　　　　　　　　　　　　　　**East Granby, CT**
Controls/Electrical Engineering Intern　　　　　　　　　　**June 2024 - August 2024**
- Resolved control system faults by recalibrating and troubleshooting hardware, enhancing equipment reliability.
- Optimized Allen Bradley PLC programming, decreasing errors and reducing optical fiber wastage by 5%.
- Installed chemical sensors on Nextrom lathes, improving process monitoring and safety.
- Conducted safety audits on control cabinets, identifying critical issues for safer access during maintenance.

University of Massachusetts Amherst　　　　　　　　　　　　　　**Amherst, MA**
Student Tutor　　　　　　　　　　　　　　　　　　　　　**August 2023 - Present**
- Provided tutoring for MATLAB and Python to engineering majors.
- Cultivated an inclusive environment for diverse learning styles.

Orientation and Transitions Leader　　　　　　　　　　　**March 2023 - March 2024**
- 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.

Projects

TinyTemp - Digital Thermometer | *KiCAD, Embedded C, ATtiny85*　　　**March 2024**
- Designed a compact PCB using KiCad, achieving a 33% size reduction with a compact 2 square inch design.
- Implemented power-saving algorithms in embedded C by sampling temperature values only when necessary.
- Built the project at 76% of the cost requirements, demonstrating effective cost management and resource optimization.

keyRING, a Smart Key Holder - HackUMASS XI | *Arduino Uno, Embedded C*　　**November 2023**
- Designed a system for sensing keys using a spring-like mechanical switch and sonar sensor for detecting door movement.
- Programmed the ATmega328P using C to communicate with the switch for key detection using digital interrupts.
- Awarded "Cheapest Hardware Hack" for a cost-effective design with 97% positive feedback from 50+ students.

Email Spam Detection using Naive Bayes Algorithm | *Python, MATLAB*　　　**April 2023**
- Developed a script utilizing scipy.io and NumPy libraries to implement a Naive Bayes classifier for spam detection.
- Applied Bayesian principles to train the classifier on the training dataset to effectively calculate probabilities.
- Achieved an accuracy rate of 94.1% with trained model on test data consisting of new, unseen emails.

Organizations

Liaison - Institute of Electrical and Electronics Engineers (IEEE)　　**March 2024 - Present**
- Fostering inter-society cooperation, enhancing campus-wide engineering initiatives.
- Developing creative strategies to bridge communication gaps between engineering societies.

Electronics Co-Lead - American Society of Mechanical Engineers (ASME)　**September 2023 - Present**
- Co-led electronics development for mini golf robot in 2024 ASME Student Design Competition, securing top 5 finish.
- Utilized I2C for precise motor control using an Xbox controller via Bluetooth.
- Collaborated with a matrixed team to enhance robot functionality, ensuring competitive performance.