Mohammad Siam

Lubbock, Texas 79406 – (806) 544-5686 – siammohammad10@gmail.com

EDUCATION

Texas Tech University, Lubbock, TX — Expected May 2028

B.S. in Electrical Engineering — *GPA:3.81*

- **Relevant Courses:** Microcontrollers with C, Modern Digital System Design, Fundamentals of EE, Intro to C Programming, Electronics, Signals and Systems, Introduction to Robotics, Robotics Project Lab

RELEVANT EXPERIENCE

Undergraduate Research Scholars Program – Embedded Systems — Aug 2025 – Mar 2026

Edward E. Whitacre Jr. College of Engineering - TTU, Lubbock, Texas

- Developed C/C++ firmware for autonomous robotic systems by processing real-time sensor inputs and translating hardware signals into decision logic to enable reliable autonomous navigation.
- Designed and iterated low-power robotic prototypes by integrating sensors, actuators, and embedded circuits to improve system reliability through systematic debugging and calibration.
- Validated embedded robotic prototypes by calibrating sensor inputs, debugging C/C++ firmware, and testing actuator responses to improve real-time control reliability.

Python-Based Data Analysis Research Project — Aug 2024 – Dec 2024

Edward E. Whitacre Jr. College of Engineering - TTU, Lubbock, Texas

- Developed a Python-based predictive analysis model by cleaning real-world health datasets, engineering features, and evaluating classification accuracy to identify early-stage diabetes risk patterns.
- Analyzed feature correlations and visualized model outputs using Pandas, Matplotlib, and Seaborn to extract actionable insights from noisy real-world data and support data-driven decision-making.

Student Assistant – Residence Life — Sep 2025 – Present

Hulen/Clement Hall - TTU, Lubbock, Texas

- Managed housing operations, records, mail distribution, and resident support by coordinating administrative systems and resolving inquiries to maintain accurate daily residence life operations.

PROJECTS

Autonomous Rover & Embedded Systems Projects — Jan 2025 – Dec 2025

Edward E. Whitacre Jr. College of Engineering - TTU, Lubbock, Texas

- Developed an interrupt-driven autonomous rover by integrating IR/ultrasonic sensors, H-bridge motor control, and embedded C logic to enable prioritized collision avoidance.
- Built a register-level C RFID reader/writer using SPI, UART, password-based authentication, and non-volatile storage to improve embedded access control.
- Designed and simulated Verilog-based digital logic modules by implementing combinational/sequential circuits and verifying waveform behavior to strengthen FPGA design fundamentals.

HONORS & AWARDS

- President's Honor List, Texas Tech University — 4.0 GPA, First Semester
- Gold Honor & Full Scholarship, Immerse Education Essay Competition — United Kingdom
- Gold Medalist, American Mathematics Competitions — AMC 12A & AMC 12B

SKILLS

- **Embedded/Firmware:** C/C++, embedded C, microcontrollers, Arduino, ARM platforms, bare-metal programming, SPI, UART, sensor integration, actuator control, hardware/software debugging
- **Hardware & PCB Design:** KiCad, schematic design, PCB layout fundamentals, component selection, Verilog, digital logic, FSM design, circuit design, soldering, hardware troubleshooting
- **Testing & Analysis:** Python, MATLAB, Mathematica, firmware debugging, sensor calibration, actuator testing, prototype validation, data analysis, Pandas, Matplotlib