MOHAMMAD ROHAAN

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OBJECTIVE

Motivated 6th-semester BSCS student at FAST University Islamabad with a strong foundation in C, C++, C#, Python(Beginners), Web Development, OS, Assembly x86, Matlab and SQL/TSQL, seeking a software development internship in AI, Machine Learning, or Robotics. Eager to apply hands-on experience from projects like TravelEase, Git Lite, and robotic car synchronization to contribute to innovative solutions while expanding expertise in neural networks, computer vision, and data science.

EDUCATION

FAST University Islamabad - Bachelor of Science in Computer Science
6th Semester (Expected Graduation: January 2027)

- Relevant Coursework: Programming Fundamentals (C++), Object-Oriented Programming (C++), Data Structures & Algorithms (C++), Database Management Systems (SQL Server), .NET Framework (C#), Robotics Technology (MATLAB, Kinematics)
- **Note:** One-year academic pause due to personal circumstances, resumed with strong academic performance.

EXPERIENCE & ACHIEVEMENTS

- Optimized and analyzed an e-commerce database with over 1 million records using SQL Server, writing complex T-SQL queries and generating ETL reports for business insights.
- Completed a Robotics Technology course, mastering forward/inverse kinematics and developing MATLAB simulations for robotic arm motion planning.

SELECTED PROJECTS

TravelEase System (C#/.NET, SQL Server) | **GitHub:** github.com/rohaan2802/TravelEase
- Developed a scalable travel management platform connecting travelers, hotels, guides, and transport services.
- Designed relational database schema and implemented stored procedures for efficient booking and reporting.
- Optimized search functionality, reducing query response time by 20% through indexing.

Git Lite (C++, DSA) | **GitHub:** github.com/rohaan2802/DSA_Project
- Built a lightweight version control system using tree and graph data structures for commit history and branch management.
- Implemented diff and merge algorithms, achieving 95% unit-test coverage for robust functionality.

Robotic Car Synchronization (Python, Arduino, ESP32) | **GitHub:** github.com/rohaan2802/RoboticCar - Programmed three ESP32-controlled robotic cars with ultrasonic and gyroscope sensors for coordinated movement. Implemented I2C communication and PID-based control loops for precise navigation and obstacle avoidance. - Achieved 90% synchronization accuracy in real-world testing scenarios.

SKILLS

Programming Languages: C++, C, C#, Python, JavaScript, Assembly x86
Frameworks & Tools: .NET Framework, SQL Server, MATLAB, ROS (Beginner), SFML, Arduino/ESP32
Databases: T-SQL, Schema Design, ETL Processes
Concepts: OOP, DSA (Trees, Graphs, Algorithms), OS (Threads, Semaphores, Mutex), Robotics (Kinematics), Web Development (HTML, CSS, JavaScript)

Certifications & Courses

- Robotics Technology Course, FAST University Islamabad (2024): Learned forward/inverse kinematics and MATLAB simulations.
- Unity WorkShop : Completed a 10-hour hands-on Unity workshop focused on core game development principles.
- [Future Addition]: Coursera Machine Learning by Stanford University (In Progress).