

## Sumair Ali Memon

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## Software Engineer

*Passionate software engineer with hands-on experience in responsive web application development. Skilled in frontend, backend, testing, and performance optimization, with a strong focus on problem-solving.*

## EDUCATION

### FAST University – Islamabad, Pakistan

*Bachelor's in Software Engineering*

**Aug 2022 – Present** (6th Semester)

## TECHNICAL SKILLS

- **Frontend:** HTML, CSS, JavaScript, React, Tailwind CSS
- **Backend:** Node.js, Express.js, Java, MongoDB
- **Testing:** White Box (Coverage, Mutation, Decision), Black Box (Boundary Equivalence)
- **Tools:** GitHub, Postman, Jira, Figma, Docker, Kubernetes, GitHub Actions
- **Competencies:** Debugging, Technical Documentation, Performance Optimization

## PROJECTS & EXPERIENCE

### Hostel Search – Full Stack Developer

**Aug – Dec 2024**

- Built a **MERN stack** Hostel Management System with **JWT authentication, role-based access control (admin, user, etc.)**, and **booking features**.
- Implemented **Redux** for state management along with **pagination** and **search filters** to enhance usability.
- Integrated **NodeMailer** and **3rd-party APIs** for sending email notifications.
- Developed **middleware** for handling authentication and multi-role access logic.

### Java-based Point of Sale (POS) System – Tester

**Aug – Dec 2024**

- Performed comprehensive testing using White & Black Box techniques
- Documented detailed test cases and managed bugs in Jira

### DealMaker (Python) – Developer

**Jan – May 2025**

- Built a deal optimization tool using FP-Growth algorithm
- Used Pandas for preprocessing and implemented batch-based processing

### **SSA Converter & SMT Tool (Python) – Developer**

**Jan – May 2025**

- Designed a tool to convert mini-language code to SSA form
- Integrated SMT solvers to check for equivalence and satisfiability

### **Movie Recommendation System – Backend Developer**

**Sep – Oct 2024**

- Built Express backend with MongoDB, implemented user-based suggestions
- Integrated Postman testing, handled secure routing and CORS

### **Weather Application & AI Chatbot – Developer**

**Sep – Oct 2024**

- Created an interactive app using weather & GEMNI AI APIs
- Implemented custom error handling and UI features

### **Front End Development Intern**

**June – July 2024**

- Worked on a doctor-finding platform using React
- Focused on mobile-first design, participated in debugging and Jira-based task management

### **C++ Projects:**

**August-2022-2023**

- *Battleship Game* — Developed using OpenGL (Glut) with C++, implemented grid-based shooting, collision detection, and random ship placement
- *Airport Management System* — Complete OOP project applying all four pillars: Encapsulation, Inheritance, Polymorphism, and Abstraction, with File Handling
- *Car Driving Simulation* — Grid-based pathfinding game using Arrays, Queues, Stacks, Trees, Graphs, and Dijkstra's Algorithm for optimal route selection

## **PROFESSIONAL STRENGTHS**

- **Web Development:** Proficient in building responsive, scalable apps
- **Debugging & Troubleshooting:** Skilled in fixing complex web issues
- **Software Testing:** Experienced in White Box, Black Box, Mutation, Coverage.
- **Team Collaboration:** Effective in agile teams with Jira for tracking
- **Documentation:** Strong in technical documentation and guides
- **Performance Optimization:** Optimizes frontend/backend systems for speed and scalability