Ali Ehtisham

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PROFESSIONAL SUMMARY

Detail-oriented Software Engineering student with hands-on experience in backend development, data engineering and security-focused projects. Skilled in building and deploying scalable web applications, data pipelines and automation workflows for both freelance and organizational environments. Strong foundation in Golang, Node.js and cloud-native tools, with proven ability to deliver efficient solutions and mentor peers on backend and security concepts. Skilled in web penetration testing, vulnerability assessment and applying secure coding practices to safeguard modern applications.

EDUCATION

National University of Sciences and Technology (NUST - MCS) — Rawalpindi, Pakistan
Bachelor of Engineering in Software Engineering — Current CGPA: 2.8 — *Oct. 2022 – Jun. 2026*

EXPERIENCE

Web Development Intern — May 2024 – june 2024
Station HeadQuaters — *Rawalpindi, Pakistan*
- Developed a complete backend-focused web application using Node.js with server-side rendering, secure routing and properly structured API endpoints
- Automated ingestion of data from XLS and similar file formats, transforming and storing it in the database
- Implemented complex backend logic, database operations and security measures to ensure safe data handling and reliable system performance

Full Stack Intern — Jan 2024 – Present
ITSolera Pvt Ltd — *Remote*
- Developed multiple scalable full-stack applications using the JavaScript stack, focusing on high-speed performance and modular architecture
- Built and deployed production-ready websites featuring secure authentication, encrypted data handling, and robust API protection

Intern — May 2025 – July 2025
Special Communication Organization(SCO) — *Rawalpindi, Pakistan*
- Worked with real-world networking setups involving WiFi and mobile communication systems
- Observed how web backend services interact with systems to manage connectivity and service availability
- Studied processes such as routing behavior, system monitoring, and server maintenance

Data Engineer — May 2025 – July 2025
Mosaic Ai — *Remote(Contract Based)*
- Built and maintained scraping workflows to extract data from multiple websites
- Delivered regular data updates and reports in line with client requirements and casting schedules
- Collaborated remotely with senior developers on ongoing client projects.

Freelance Developer — 2024 – Present
Remote
- Worked on backend projects covering development and deployment
- Delivered security assessments for web applications
- Provided mentorship and teaching support on backend and security concepts

PROJECTS

OCR Backend as FYP | *Node.js, gRPC, REST API, Microservices, Mongoose* — 2025
- Developing a full-fledged backend system for OCR as a FYP ensuring modularity, scalability and maintainability
- Implementing microservices architecture using Node.js, with gRPC communication between services and a REST API gateway for client interactions
- Integrated security mechanisms, ensuring professional-grade performance and reliability

Shia Calendar Notification API | *Node.js, REST API, Mongoose,* — 2025
- Built a robust API to deliver real-time notifications for Shia events with continuous updates
- Implemented a scheduling algorithm using calendar data for high performance and reliability
- Designed the system to be scalable, extendable and ready for future Android app integration

Web Chat Application | *Node.js, Express.js, Socket.io, WebRTC, SSR* — 2025

- Built a complete real-time chat app with messaging, voice chat and call features
- Built SSR frontend crafted with Prompt Engineering
- Designed a scalable and reliable backend architecture for real-time communication

Army Housing Management Application | *Node.js, Express.js, REST API, MongoDB* 2024
- Developed a complete backend system with server-side routing, structured REST API endpoints and secure data handling
- Automated ingestion and transformation of XLS, CSV, and similar file formats, efficiently storing them in the database for seamless processing
- Implemented advanced backend logic and database operations including error handling and security measures, ensuring high performance

LMS | *Node.js, Express.js, Mongoose, React* 2025
- Developed a comprehensive full-stack LMS featuring Role-Based Access Control (RBAC) for students, instructors, and admins to manage educational content securely
- Integrated secure payment gateways and multimedia storage solutions, ensuring high-speed delivery of video lectures and learning materials
- Built dynamic course management modules including progress tracking, quiz engines, and automated certification generation using a scalable backend architecture

Other Projects Projects

Energy Automation System | *ESP32, Sensors, Relay Modules* Semester Project
- Built complete smart home automation system to control electrical appliances based on room occupancy, improving energy efficiency and convenience
- Integrated light sensors with relay modules for automated appliance control using microcontroller programming for real-time response

Microwave-Based Secure Signaling Device | *RFID/Microwave Modules, ESP32, antennas*
- Designed a microwave-based device to securely transmit short-range Signal/Events ensuring privacy and low-latency communication
- Integrated encryption mechanisms and signal modulation for reliability

TECHNICAL SKILLS

Programming Languages: Golang, C/C++, JavaScript, Embedded language
Libraries & Frameworks: Node.js, Medusa, Gin(Golang), Fastify, gRPC, React
Tools & Platforms: Docker, Kubernetes, MongoDB, LMDB, Jenkins, Burp Suite, Postman, Git/Github, Arduino