

Tayyab Attiq

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PROFILE SUMMARY

Software Engineering student specializing in **full-stack development** and **AI systems**. Proficient in **MERN stack**, building scalable web applications with **React.js**, **Node.js**, and **MongoDB**. Experienced in **AI-powered solutions** using **RAG**, **LangChain**, and NLP for intelligent information retrieval. Strong foundation in **DevOps**, **CI/CD**, secure coding, and delivering production-ready systems with measurable impact.

EDUCATION

National University of Computer & Emerging Sciences (FAST-NUCES) Islamabad, Pakistan
Bachelor of Science in Software Engineering Aug 2022 – June 2026

TECHNICAL SKILLS

Languages: C++, Java, Python, JavaScript, TypeScript, SQL, HTML/CSS
Frameworks & Libraries: React.js, Node.js, Express.js, Tailwind CSS, Material UI
AI & Machine Learning: Retrieval Augmented Generation (RAG), LangChain, NLP, AI-powered Information Retrieval
DevOps & Tools: Git, GitHub Actions, Docker, CI/CD, Postman, VS Code
Databases: MongoDB, MySQL, SQL Server
Operating Systems: Linux (Ubuntu), Windows, VirtualBox, VMware

EXPERIENCE

Software Development Intern June 2024 – Aug 2024
Protect Lab, FAST-NUCES Islamabad, Pakistan

- Developed MalDef, a signature-based malware detection system with 85% accuracy across 1000+ test samples
- Collaborated with team of 4 developers using Git and Agile methodologies for version control
- Strengthened problem-solving skills in real-world development environments.

PROJECTS

Point of Sale (POS) System | *React.js, Node.js, Express.js, MongoDB, REST APIs* Dec 2025

- Architected full-stack retail system with product inventory, billing, and sales analytics
- Built RESTful API with 15+ endpoints, JWT authentication, and role-based access control
- Designed responsive React frontend with real-time sync reducing page load time by 40%
- Optimized MongoDB queries with indexing strategies improving performance by 3x

End-to-End Encrypted Messaging System | *Node.js, WebSockets, Cryptography, MongoDB* Nov 2025

- Developed secure real-time messaging app implementing RSA and AES encryption protocols
- Engineered zero-knowledge architecture ensuring server cannot decrypt messages
- Implemented WebSocket communication for real-time delivery with 99.9% uptime

AI-Powered Academic Assistant (RAG System) | *Python, LangChain, RAG, NLP* Jan 2025

- Engineered intelligent querying system using Retrieval Augmented Generation with vector embeddings and generative AI for context-aware responses from academic documents
- Implemented semantic search with vector databases, reducing query response time by 60%
- Integrated LangChain framework for document retrieval and LLM-based response generation
- Achieved 92% relevance accuracy on 200+ test queries through prompt engineering

Cropify - Agriculture Marketplace | *React.js, Spring Boot, MySQL, REST APIs* June 2024

- Built full-stack marketplace platform connecting farmers with buyers for agricultural trading
- Developed Spring Boot backend with layered architecture (Controller-Service-Repository)
- Integrated Material UI creating intuitive interface with 95% user satisfaction

CERTIFICATIONS & LEADERSHIP

Microsoft Learn Student Ambassador | *Cloud Skills Challenge* 2024
Google Soft Skills Program | *PAFLA - Teamwork & Professional Development* 2024