

# Tayyab Attiq

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## SUMMARY

Software Engineering graduate from FAST-NUCES experienced in building **full-stack web applications** with the **MERN stack** and **RESTful APIs**, and engineering **RAG** pipelines with **LangChain** and **LLMs**. Proficient in **AWS**, **Docker**, **CI/CD**, and **Agile/Scrum** delivery within cross-functional teams.

## EDUCATION

**National University of Computer & Emerging Sciences (FAST-NUCES)**  
*Bachelor of Science in Software Engineering*

Islamabad, Pakistan  
Aug 2022 – June 2026

## PROFESSIONAL EXPERIENCE

**Software Development Intern**  
*Protect Lab, FAST-NUCES*

June 2024 – Aug 2024  
Islamabad, Pakistan

- Engineered **MalDef**, a signature-based malware detection system evaluated against **1,000+ malware samples** across multiple threat families, producing a reusable signature database covering **10+ malware categories**
- Contributed to a **cross-functional team of 4** using **Git** feature branching and **Agile/Scrum** sprints, shipping all 3 planned sprint deliverables on schedule

## KEY PROJECTS

**Talk2FAST – AI Student Guidance Platform (FYP)** | *MERN, React Native, RAG, LLM*

2025 – 2026

- Architected a **microservices** platform with **6 decoupled services** (gateway, auth, chatbot, career, career-stats, mock-test) using **Node.js** behind a unified **API gateway** ([GitHub](#))
- Built a **RAG**-based chatbot with **LangChain**, **FAISS** vector search, and **Ollama**-hosted **LLMs** for document-grounded guidance across **10+ source documents**
- Crafted a cross-platform (web + mobile) experience with **React.js** and **React Native**: chatbot, analytics dashboard, and mock exam module with attempt history
- Built secure auth using **Supabase** and **MongoDB** with **JWT** and **RBAC** enforced across all microservices

**Highly Available, Scalable Web Application** | *AWS, EC2, RDS, Auto Scaling, Load Balancing*

2026

- Deployed a highly available student records system on AWS using EC2, RDS, an Application Load Balancer, and Auto Scaling across multiple Availability Zones
- Implemented VPC isolation, private DB subnets, Secrets Manager, and IAM roles; load tested to validate scalability under peak traffic

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

2025

- Built a full-stack retail management system with inventory, billing, and a real-time sales analytics dashboard using the **MERN stack** ([GitHub](#))
- Designed a **RESTful API** with **15+ endpoints**, **JWT auth**, and **RBAC** for admin, cashier, and manager roles; optimized **MongoDB** with compound indexing to cut retrieval latency

**End-to-End Encrypted Messaging System** | *Node.js, WebSockets, RSA, AES, MongoDB*

2025

- Built a real-time secure messaging app with hybrid **RSA + AES** client-side encryption and a **zero-knowledge server** routing encrypted payloads via **WebSockets** ([GitHub](#))

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Python, C#, C++, SQL

**Frontend:** React.js, React Native, Expo, Tailwind CSS

**Backend:** Node.js, Express.js, RESTful APIs, MongoDB, MySQL, Supabase

**AI & ML:** Retrieval-Augmented Generation (RAG), LangChain, OpenAI API, Ollama, LLMs, Prompt Engineering

**DevOps & Cloud:** Docker, AWS, Git, GitHub, Vercel, CI/CD

**Other:** MERN Stack, WebRTC, End-to-End Encryption, Agile/Scrum

## CERTIFICATIONS

AWS Academy Graduate (2026)

Microsoft Learn Student Ambassador (2024)

AWS Cloud Quest (2026)

Google Soft Skills Program (2024)