Shahzeb Faisal

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Summary

Passionate Data Science student with comprehensive expertise in **Machine Learning**, **Full-Stack Web Development**, **Blockchain**, and **AI/NLP**. Proven track record through **3 internships** and **16+ production-ready projects**. Skilled in building AI-powered applications, predictive models, and scalable systems. Currently conducting research on LLM-based conversational chatbots at FAST NUCES. Seeking opportunities to leverage data-driven solutions and cutting-edge technologies.

Education

FAST NUCES, Lahore Campus   **2021 − Expected 2025**
Bachelor's in Data Science
- Research Assistant under Dr. Esha Tur Razia Babar
- Focus: Machine Learning, Deep Learning, NLP, Big Data Analytics

Punjab Group of Colleges   **2019 − 2021**
Intermediate in Computer Science (ICS)

Technical Skills

Programming Languages: Python, JavaScript, TypeScript, C++, C, SQL, Java, Solidity
Machine Learning & AI: TensorFlow, PyTorch, Scikit-Learn, LSTM, Transformers, Hugging Face, OpenAI GPT-4, NLTK, Computer Vision
Web Development: Next.js 15, React, Node.js, Express.js, Tailwind CSS, ShadCN UI, REST APIs, WebSocket
Data Science: Predictive Modeling, Data Visualization, Big Data, Pandas, NumPy, Matplotlib, Seaborn, Plotly
Databases: MS SQL Server, MongoDB, PostgreSQL, Supabase, MySQL, Prisma ORM
Cloud & DevOps: Azure Cloud, AKS, Bicep (IaC), Vercel, Docker, Git, Azure CLI
Blockchain: Solidity, Web3.js, Smart Contracts, Truffle, Ganache, Ethereum

Professional Experience

AI-First Web Development Intern   **2025**
Nexium
- Developed **AI-powered Resume Tailor** platform with smart parsing, ATS optimization, and job matching algorithms using Next.js 15 and OpenAI GPT-4
- Built **Blog Summarizer** with web scraping, NLP summarization, and Urdu translation using dual database architecture (Supabase + MongoDB)
- Created **QuoteGen AI** with server-side rendering and WCAG 2.1 AA accessibility compliance
- Implemented responsive UI/UX with Tailwind CSS, ShadCN UI, and Progressive Web App features

Research Assistant   **2024 − Present**
FAST NUCES Lahore
- Conducting research on **"Exploring Publicly Available LLMs for Conversational Chatbots"** under Dr. Esha Tur Razia Babar
- Exploring persona-based chatbot architectures and bias mitigation strategies in LLM systems
- Investigating real-world applications and ethical challenges in LLM-driven conversations

Data Science Intern   **2024**
CodeAlpha
- Developed predictive models for business intelligence, improving decision-making accuracy by **25%**
- Designed automated data analysis pipelines, reducing processing time by **30%**
- Applied SQL and machine learning algorithms to extract actionable insights from large datasets
- **Certification:** Recognized for expertise in predictive modeling and data analytics

Data & Software Intern   **2024**
Kashf Foundation
- Built compliance system dashboard with real-time analytics and data monitoring
- Optimized SQL queries and database schema, reducing response time by **40%**
- Enhanced Android mobile app UI/UX, improving user engagement and satisfaction
- **Certification:** Dashboard development, app UI, and SQL databases

Featured Projects

Nexium Resume Tailor | *Next.js 15, TypeScript, OpenAI GPT-4, Supabase, PWA* **2025**
- AI-powered resume optimization platform with smart parsing, ATS optimization, and job matching using NLP
- Real-time editing, version control, and cover letter generation with PWA offline capability

Blog Summarizer | *Next.js 15, MongoDB, Supabase, Prisma, Cheerio* **2025**
- Full-stack AI web app with web scraping, NLP summarization, and Urdu translation
- Dual database architecture for structured and unstructured data with glassmorphism UI

Environmental Impact Analysis | *Python, Satellite Data, NDVI, Jupyter* **2024**
- Analyzed satellite imagery to monitor deforestation and urban sprawl using NDVI indices
- Visualized land cover changes for environmental decision-making with spectral analysis

Lahore Smart City Management | *Python, Pandas, NumPy, OpenWeatherMap API* **2025**
- Real-time data pipeline processing **13.5M+ vehicle registrations** with **98.75%** quality score
- Weather integration and traffic safety analytics with synthetic data generation

Election DApp | *Solidity, Blockchain, Web3.js, Truffle, Ganache* **2025**
- Decentralized voting application on Ethereum blockchain with transparent smart contracts

Edu Connect | *React, Node.js, MySQL, WebSocket, Express* **2024**
- Full-stack platform connecting students with tutors featuring real-time WebSocket chat

Image Captioning with LSTM | *Python, TensorFlow, Keras, LSTM* **2024**
- Deep learning model generating descriptive captions, achieved **0.875 BLEU score**

Music Sentiment Analysis | *Python, NLP, Machine Learning* **2024**
- Analyzed song lyrics sentiment across different music eras using NLP and ML algorithms

Certifications

Nexium AI-First Web Development Internship (2025) – AI-powered Applications & Full-Stack Development
Technology Academy - Couch to Coder 2024 (Sep 2024) – Software Development
CodeAlpha Data Science Internship (Jun-Jul 2024) – Predictive Modeling & Data Analysis
Kashf Foundation IT Internship (Jul-Aug 2024) – Dashboard Development & SQL Databases

Key Strengths

Technical Proficiency: Expert in Python, JavaScript/TypeScript, SQL, ML, and Cloud Computing
Full-Stack Development: End-to-end application development from database to deployment
AI/ML Expertise: Deep learning, NLP, LLMs, and computer vision
Problem-Solving: Complex real-world data-driven challenges
Research Experience: Cutting-edge LLM and conversational AI technologies

16+ Production-Ready Projects | 3 Professional Internships | Active GitHub Contributor