Muhammad Talha Khalid

Islamabad, Pakistan | 0301 5328528 | muhammadtalhakhalid71@gmail.com | GitHub | LinkedIn

Summary

Computer Science graduate with hands-on experience in AI, Machine Learning, Deep Learning, and Full-Stack Development. Skilled in Python, TensorFlow, PyTorch, and the MERN stack. Built real-world AI systems including a CNN-powered mobile app and an LLM-based chatbot. Passionate about delivering scalable solutions that solve real problems.

Skills

- Programming Languages: Python, JavaScript, C++, SQL, HTML, CSS
- Frameworks & Libraries: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, React.js, Node.js, Express.js, Flask
- AI & NLP: NLP, Large Language Models (LLMs), Hugging Face Transformers, LangChain, RAG Pipelines
- Tools & Platforms: Git, GitHub, Google Colab, Firebase, Jira, Postman, MongoDB, MySQL, Android Studio
- Data Handling: RESTful APIs, JSON, JWT auth, data cleaning, schema design
- Frontend & Mobile Development: React dashboards, Kotlin-based Android UI

Technical Experience

${\bf Forex\ Trust\ Hub-Full-Stack\ Forex\ Trading\ Platform\ with\ LLM-Based\ AI\ Chatbot}$

[GitHub]

Final Year Project | Nov 2024 – Jul 2025

- Built a full-stack MERN web app to help retail traders assess brokers and download MQL5-based trading bots.
- Engineered data pipelines and feature extraction workflows to support broker evaluation and algorithmic trading decisions.
- Integrated an LLM-based chatbot (FLAN-T5 + FastAPI + React) for trading bot assistance.
- Enhanced chatbot with TF-IDF + cosine similarity + LLM inference for context-aware responses.
- Developed a broker scoring algorithm (based on regulation, spread, leverage) and validated an MQL5 EA on 23k+ trades with 89% win rate.

Python RAG Assistant — Step-by-Step AI Coding Assistant with Offline Doc Search Apr 2025-Jul 2025

[GitHub]

- Designed for educational platforms and AI coding copilots; built an intelligent assistant that converts coding goals into step-by-step solutions with contextual documentation support.
- Phase 1: Used Falcon-7B-Instruct + Tavily API for real-time doc retrieval and auto-generated markdown reports.
- Phase 2: Parsed Python 3.13 docs, embedded with Sentence Transformers, indexed via FAISS, integrated with LangChain RetrievalQA.

Forex Prediction Mobile App — Android + CNN-Powered Flask API

[GitHub]

Mar 2024 - Jul 2024

- Developed a Kotlin app capturing candlestick chart images from TradingView to predict forex trends.
- Trained and optimized a CNN model in TensorFlow, achieving 62% accuracy for buy/sell classification.
- Deployed the model via Flask REST API for real-time mobile inference.

Education

Bachelor of Science in Computer Science

Institute of Space Technology, Islamabad Nov 2021 – Jul 2025

Certifications

Google Data Analytics Professional Certificate

[Certificate]

Google via Coursera

Issued: Dec 2024

- Completed 8-course program covering the data analysis lifecycle (spreadsheets, SQL, R).
- Performed EDA, data cleaning, visualization, and reporting with real-world case studies.