Muhammad Danish Meraj

AI Automation Engineer · LLM & API Integration · CS Student

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PROFILE

Computer Science student at NED University and working Developer & Automation Engineer who integrates LLMs and APIs into real business workflows. Builds automation pipelines with n8n and Python, fine-tunes transformer models (AI Odyssey 2026 competition winner), and ships full-stack apps with Django, Spring Boot and Next.js. Comfortable testing and documenting AI solutions from prototype to production.

SKILLS

AI & LLMs: Google Gemini API, LLM Prompt Engineering, Grounded / Retrieval-backed Responses, AI Agent Workflows, Generative AI
Automation & APIs: n8n (workflows, custom nodes, ETL), REST API Integration, Webhooks, Postman, Django REST Framework, JWT Auth
ML & Data: PyTorch, Hugging Face Transformers, NER / NLP, NumPy, Pandas · **Languages:** Python, SQL, Java, JavaScript/TypeScript, C++
Databases & Cloud: PostgreSQL (Neon), Firebase, Cloud Firestore, NoSQL, Relational Database Design
Frameworks & Tools: Spring Boot, Next.js, React.js, Vite, Tailwind CSS, Flutter, Git, GitHub, Vercel

EXPERIENCE

Developer & Automation Engineer | Techoid 09/2026 – Present | Karachi, Pakistan

- Design and build automation workflows that connect business tools and APIs, reducing repetitive manual work for internal teams.
- Integrate LLMs into applications for content generation, data extraction and summarization; test, maintain and document the integrations.

AI Automation Engineer (Intern) | Centre for Agentic & Quantum Technologies (CAQT) 07/2026 – 08/2026 | Karachi, Pakistan
A subsidiary of Al Rahim Group of Companies

- Built AI-driven automation workflows as part of the centre's agentic AI initiatives, integrating LLM APIs with internal processes.
- Prototyped and tested agent-style workflows with n8n and Python, iterated on prompts for reliability, and documented them for the team.

Frontend Developer | Ida Rieu Welfare Association 02/2026 – Present | Karachi, Pakistan

- Developed a responsive school management web app (React.js, Vite, Tailwind CSS) with reusable components and animated dashboards.

Full Stack Developer | CSIT, NED University 12/2025 – 02/2026 | Karachi, Pakistan

- Built full-stack web applications with Next.js and Django, designed NoSQL data models and optimized API endpoints.

ACHIEVEMENTS & CERTIFICATIONS

Winner — Dory's Data Dive, AI Odyssey 2026 (AI Alliance Club, Dept. of CS & IT, NED University) for a Pakistani-news Named Entity Recognition system.
Certifications: Google AI — Coursera (Google) · Data Science Orientation — IBM · Tools for Data Science — IBM · Data Science & Analytics — HP LIFE

PROJECTS

ner-pk — Pakistani-News Named Entity Recognition (Competition Winner) 10/2026
Python, PyTorch, Hugging Face Transformers (XLM-RoBERTa-large), LLM-assisted labelling, regex rules, pytest · Machine Learning

- Fine-tuned XLM-RoBERTa-large for 20 entity types (people, government bodies, laws, CNIC, money, etc.) with a two-stage curriculum; reached **0.918 micro-F1** on the dev set.
- Built training data with two LLM labellers + agreement filtering, added a regex rules layer, and shipped a CPU-ready CLI (text / JSONL / CoNLL) with tests.

Smart EV Charging Station Planning & Energy Allocation 10/2026
Python, Next.js dashboard, pytest · Design & Analysis of Algorithms (team of 4)

- Built a minimum spanning forest of a Karachi road network with Kruskal + Union-Find, with incremental repair after road failures verified against full Kruskal.
- Assigned EV charging requests to stations with an exact 0/1 multiple-knapsack DP; ~340 automated tests and an interactive Next.js results dashboard.

Student Mental Health Screening System 10/2026
Java 17, Spring Boot, React, Vite, Supabase, PlantUML · Object-Oriented Analysis & Design

- Built PHQ-9 / GAD-7 screening with risk levels, counselor booking and high-risk alerts, using Singleton, Factory Method and Strategy patterns; documented with 10 UML diagrams.

EchoLens — AI-Powered Research Assistant 08/2025 – 11/2025
Flutter, Google Gemini API (Grounded AI), Firebase, PDF Generation · Team Project

- Cross-platform research assistant with real-time web research and citation-backed answers to reduce hallucinations, plus OTP auth, history storage and PDF reports.

More: API Incident Triage Expert System (Python, Streamlit, 60+ rules) · Smart Parking DFA Simulator (smart-parking-dfa.vercel.app) · RBAC System (Django REST, Next.js, JWT) · FocusGarden · Hospital Management System (C++, SQL Server)

EDUCATION

Bachelor's in Computer Science & IT — NED University of Engineering and Technology 08/2024 – Present
Coursework: Machine Learning, Intro to AI, Design & Analysis of Algorithms, OOAD, Data Structures, DBMS, Linear Algebra, Probability & Statistics

Intermediate (Pre-Engineering) — Adamjee Govt. Science College · 80% | **Matriculation** — Karachi Public School · 93% 2020 – 2024