

SAIFULLAH SULEMAN

Applied AI Engineer

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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

SUMMARY

Applied AI engineer focused on computer vision, RAG systems and Python backend development. Built AI prototypes with model evaluation and deployed a live retail storefront. Contributing to funded CNC monitoring research at NUST PNEC. Available for full-time AI/ML roles in Karachi (onsite/hybrid) or remotely.

TECHNICAL SKILLS

AI and ML: Python, PyTorch, TensorFlow, scikit-learn; model training and evaluation

Computer Vision: YOLO11, OpenCV, ByteTrack, EasyOCR; detection, tracking and ALPR

LLM systems: RAG, embeddings, Qdrant, OpenAI/Gemini APIs

Backend and web: FastAPI, Node.js, TypeScript, Fastify, React, PostgreSQL

Engineering: Redis, Celery, Docker, pytest, Git, GitHub Actions

EXPERIENCE

Research Analyst | PNEC, NUST

Sep 2026 - Present

Pakistan Science Foundation-funded CNC process-health monitoring research

- Curate CNC machining datasets through preprocessing, operation-wise segmentation and labeling of continuous production-cycle signals.
- Develop and evaluate PyTorch/TensorFlow models for CNC process-health monitoring; build vibration-signal inference components for integration with the project's IoT/edge architecture.

Full Stack Developer | Wisdom Tech

Aug 2025 - Aug 2026

Backend-focused role | Karachi / Remote

- Built Python and Node.js/TypeScript backends and APIs for business and e-commerce applications; integrated PostgreSQL and contributed to Shopify implementations, testing and deployment.

Data Analysis Intern | NCBC, NED University

Nov 2024 – Jan 2025

Karachi, Pakistan

- Cleaned and analyzed datasets using SQL; built Power BI and Tableau dashboards to communicate trends and performance metrics.

SELECTED PROJECTS

PDF RAG System | [GitHub](#)

- Built an asynchronous FastAPI backend for native/scanned PDFs using Tesseract OCR, Celery/Redis, Qdrant retrieval, page citations and confidence-based abstention.
- Added PostgreSQL conversations, retrieval traces, Docker, automated tests and CI gates; compared dense, hybrid and reranked retrieval across 46 synthetic regression cases (32 positive, 14 negative/no-answer).

MS-ADA Intelligent Traffic Surveillance | [GitHub](#)

Jun 2025 - Aug 2026

- Built an academic prototype combining YOLO11 detection, ByteTrack tracking and EasyOCR-based Pakistani automatic license plate recognition (ALPR), with accident reasoning from motion, proximity and trajectory signals.
- Tested the system on multiple raw traffic videos; generated snapshots, evidence clips and structured event outputs. Manuscript under peer review.

Wahab Mobiles E-commerce Platform | [GitHub](#) | [Live](#)

- Built React/TypeScript frontend (Vercel) and Fastify/PostgreSQL backend (Render) with inventory/admin tools; live catalogue lists 80+ active products. Implemented ordering workflows for upcoming launch.

Lead Scoring ML API | [GitHub](#)

- Built a scikit-learn/FastAPI methodology demo on 5,000 synthetic leads with separate train/validation/test sets, calibration diagnostics and cost-based thresholds; ROC-AUC 0.729 on 1,000 held-out test rows.

EDUCATION

M.S. Artificial Intelligence | NUST PNEC, Karachi

Expected 2028

B.E. Telecommunications Engineering | NED University

Jun 2026

LEADERSHIP

President, TE Links, NED University (2025-2026): Led 10+ events and 6 technical sessions.