

HAIDER ANEES

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PROFESSIONAL SUMMARY

Machine Learning Lead, LLM Engineer, Senior Python Engineer with 8+ years of experience building scalable web applications, RESTful APIs, and cloud-native systems using Django, Django REST Framework, Flask, and FastAPI. 4+ years of specialized experience as an LLM Engineer, contributing to fine-tuning, evaluation, and prompt engineering for models from Apple, Mistral, ServiceNow, and Gemini. Proven track record delivering end-to-end IoT platforms — spanning embedded hardware (Arduino, Raspberry Pi, ESP32, PLCs, servo motors, cameras, microphones, speakers, and environmental/industrial sensors), real-time telemetry pipelines, and cloud-connected monitoring dashboards with automated alerting — alongside secure authentication systems, web scraping engines, and CI/CD-driven deployments across AWS, Microsoft Azure, and modern JAMstack platforms (Vercel, Netlify, Cloudflare). Skilled in both relational and non-relational databases, and comfortable owning projects end-to-end from requirements through production support.

WORK HISTORY

Machine Learning Lead / Senior Software Engineer

Mar 2022 – Present

Axelliant LLC / Khazana Enterprise – Lahore, Pakistan

- Led machine learning and full-stack engineering efforts as Machine Learning Lead / Senior Software Engineer, owning architecture decisions, code reviews, and technical mentorship for a small engineering team.
- Implemented CI/CD pipelines using Microsoft Azure and AWS.
- **Architected and delivered an end-to-end IoT gas pressure monitoring system for Sui Northern Gas Pipelines Limited (SNGPL)**, deployed across multiple field sites in Pakistan to monitor pressure, flow, and temperature in real time.
- Designed the field sensor network using ESP32 and Raspberry Pi microcontrollers interfaced with pressure, temperature, and flow sensors, PLCs for industrial-grade data acquisition, and servo motors for automated valve control.
- Built real-time telemetry pipelines streaming sensor data into InfluxDB/MongoDB, with automated threshold-based alerting for pressure anomalies and potential leaks.
- Developed a live monitoring dashboard (React/Next.js) for field engineers and operations staff to visualize pressure trends, historical readings, and site-level alerts.
- Implemented remote device management and over-the-air (OTA) firmware updates for field-deployed IoT hardware.
- Developed a 2FA secure login system for Nadra Pakistan.
- **Built and maintained full-stack web applications using ReactJS, Next.js, and Supabase**, integrated with Django-based backends and RESTful APIs.
- **Owned end-to-end CI/CD pipeline design and deployment automation** using GitHub Actions, Vercel, Netlify, and Cloudflare Pages/Workers, covering build, preview, staging, and production release workflows for frontend and edge-hosted applications.
- Supported the full project life cycle, from design and analysis through deployment and post-delivery support.

Technologies: Python, Django, Django REST, Flask, FastAPI, Frappe, Supabase, ReactJS, Next.js, GitHub Actions, Vercel, Netlify, Cloudflare, Microsoft Azure, MongoDB, InfluxDB, T-SQL, Elasticsearch, AWS, PostgreSQL, MySQL, MSSQL, Linux, Docker, ESP32, Raspberry Pi, PLC, Servo Motors, IoT Sensors

Senior Python Engineer / LLM Engineer

Oct 2023 – 2026

Turing Enterprise – Remote

- Worked on machine learning models to increase prediction accuracy.
- Implemented a complete web scraping engine covering 30+ portals, handling pagination, anti-bot measures, and structured data extraction at scale.
- Prioritized and maintained the sprint backlog for assigned products, balancing stakeholder requirements.
- Translated product roadmap features into well-defined requirements, including epics, user stories, and acceptance criteria.
- Wrote unit tests and followed TDD practices using Pytest.
- Worked on LLM fine-tuning, evaluation, prompt engineering, and instruction-following data generation for models from Apple, Mistral, ServiceNow, and Gemini.

- Served as SME, QA, and Calibrator on SWE-Bench, Microsoft Safety Datapacks, CASB/Perplexity CASB, Google Safety Pairs Datapacks, and Turing Internal Safety Datapacks.
- Created an evaluation harness for TuringGPT to streamline internal model testing.

Technologies: Web Scraping, LLM Training, Model Training, Data Analysis, AWS, AWS Lambda, AWS SAM, Python, TypeScript, Docker, GitHub Actions, CodePipeline, Django REST, Elasticsearch, MongoDB

Senior Data Scientist

Apr 2023 – Dec 2023

Saal.ai – United Arab Emirates

- Worked on large language models (LLMs).
- Built applications integrating OpenAI models with Python.
- Implemented GPT-2 and GPT-3 in a web application to generate images based on user input.

Technologies: Python, Keras, TensorFlow, GPT-2, GPT-3, Django REST, PostgreSQL, MongoDB, AWS, Linux, Docker

Python Engineer

Oct 2019 – Mar 2022

Tower Technologies – Pakistan

- Delivered a Django-based solar energy platform accelerating adoption of low-carbon power, with RESTful APIs and web, Android, and iOS clients.
- **Built Glaukus, an IoT aqua-monitoring app** tracking dissolved oxygen, nitrate, pH, and ammonia levels with automated alerts and full mobile/web control, using Arduino and Raspberry Pi sensor nodes with waterproof probes and wireless telemetry.
- **Delivered an automated scooter-rental platform** with camera-based license-plate recognition, ESP32-controlled IoT-enabled stands with servo-motor locking mechanisms, and a mobile app tied to university portal credentials.
- Worked hands-on across the full IoT hardware stack — Arduino, Raspberry Pi, ESP32, servo motors, PLCs, cameras, microphones, and speakers — for prototyping, sensor integration, and field deployment of connected devices.
- Held weekly meetings with the operations team to align on business needs.

Technologies: Python, Django, Django Templates, DRF, Flask, Microsoft Azure, Azure IoT Hub, Azure CI/CD, MQTT, Redis, InfluxDB, Azure App Service, Tkinter, IoT, Arduino, Raspberry Pi, ESP32, Servo Motors, PLC, Camera Modules, Microphone/Speaker Modules, Sensors, Linux Server, Windows Server, PostgreSQL, MySQL, T-SQL, MongoDB, MariaDB

KEY ACHIEVEMENTS

- Progressed from Trainer to Senior SME, QA, and Calibrator on LLM programs, now leading quality calibration and reviewing the work of junior trainers across multiple safety and reasoning workstreams.
- Delivered function-calling and tool-use LLM training data for Apple, improving the model's ability to correctly invoke functions and follow structured instructions.
- Served as SME and QA on Microsoft Safety Datapacks, authoring and calibrating safety-critical evaluation data to strengthen model guardrails.
- Contributed to CASB / Perplexity CASB as a Calibrator, ensuring consistency and quality across annotators on safety and compliance datasets.
- Worked on Google Safety Pairs Datapacks and SWE-Bench, benchmarking and evaluating model performance on coding and safety tasks.
- Architected a full IoT hardware-to-cloud platform for Sui Northern Gas, integrating ESP32/Raspberry Pi sensor nodes, PLCs, and servo-controlled valves with real-time monitoring dashboards and automated alerting.
- Developed a full Email Engine using AWS Lambda and AWS SAM.
- Implemented Redis with Celery for background job processing.
- Built a 2FA secure login application using Flask.
- Built a complete web scraping engine in Python, extracting structured data across 30+ portals.
- Created an evaluation harness for TuringGPT to support model benchmarking and QA workflows.
- Delivered a Django-based solar energy monitoring platform with web, Android, and iOS clients and RESTful APIs.
- Built Glaukus, an IoT aqua-monitoring app tracking dissolved oxygen, nitrate, pH, and ammonia levels with automated alerts across web and mobile, using Arduino/Raspberry Pi sensor nodes.
- Delivered an automated scooter-rental platform with license-plate recognition, IoT-enabled stands, and a mobile app tied to university portal credentials.
- Built staging and production CI/CD pipelines using GitHub Actions, Vercel, Netlify, Cloudflare, Microsoft Azure, AWS CDK, CodeBuild, and CodePipeline.

SKILLS

- Python, Django, Django REST Framework
- Flask, FastAPI, Pyramid
- PostgreSQL, MySQL, T-SQL/MSSQL
- MongoDB, InfluxDB, Elasticsearch
- LLM Fine-Tuning & Evaluation
- Microservices & Serverless Architecture
- IoT Hardware: Arduino, Raspberry Pi, ESP32, PLCs, Servo Motors, Sensors, Cameras, Mic/Speaker Modules
- AWS (Lambda, SAM, CodePipeline)
- Microsoft Azure & Azure Functions
- CI/CD: GitHub Actions, Vercel, Netlify, Cloudflare
- ReactJS, Next.js, TypeScript, Supabase
- Unit Testing, TDD, Pytest
- REST API Design & B2B/B2C Integrations
- Web Scraping & Data Extraction

EDUCATION

Bachelor of Science in Computer Science

University of Central Punjab – 2019