Fazeel Asghar

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Education

Islamia University of Bahawalpur

Bachelor of Science - IT, Information technology

Work Experience

7 Kings Code | *AI* | *Backend* | *Embedded Systems Developer* **On Site Lahore** *Current*

- Developed a multi-session conversational AI agent, integrated with the Unitree Go2 Pro quadruped robot, enabling adaptive interaction and task execution.
- Built a GenAI-based resume parser for a proprietary job-hunting platform, and deployed an autonomous email triage agent to classify messages and notify the support team accordingly. Link: https://jobsshopper.com/
- Trained reinforcement learning agents for decision-making tasks and Agentic AI systems for autonomous workflows in real-world scenarios.
- Implemented real-time stock prediction models using live market data, improving forecast precision.
- Optimized IoT-to-Django data pipelines for efficient, scalable communication across edge and cloud systems.
- Enhanced system performance through targeted debugging and optimization, improving data accuracy and responsiveness.
- Collaborated with international research teams to align AI-driven solutions with healthcare needs and applications.

Safe-RH | Jr. AI Engineer **On Site Bahawalpur** *Aug 2023 – Jul 2025*

- Developed a scalable AI-driven rural health monitoring system for real-time patient analysis.
- Trained machine learning models for heart disease prediction using real-time patient data.
- Integrated Raspberry Pi 2 with medical devices to collect, process, and transmit data to a Django-based server for review by doctors and paramedics.
- Optimized data pipelines to ensure reliable IoT-to-Django communication and system performance.
- Debugged and fine-tuned the system to enhance data accuracy, latency, and stability.
- Collaborated with international research teams, including the University of the West of Scotland (UWS), to align AI solutions with rural healthcare needs.
- Project link: https://safe-rh-mis.com/

UWS | *Research AI Intern* **On Site Scotland, Paisley** Jul 2024 - Aug -2024

- Sub-initiative and Sponsored by the **Safe-Rh**, here I designed & developed an AI-Integrated Smart Wheelchair with IoT-based vital signs monitoring for enhanced patient care.
- Implemented Obstacle Detection & Avoidance using YOLOv8n Lite, Arduino UNO, and ultrasonic sensors for autonomous navigation.
- Engineered Real-Time Health Monitoring by transmitting patient vitals to a remote MySQL database, ensuring continuous tracking and timely interventions.

Projects

Small Autonomous Car (Taxi Simulation) Final Year Project *July 2025-May 2025*

- Designed and implemented a sensor-driven autonomous navigation system with obstacle detection, path planning, and GPS-based routing. Integrated a web interface for dynamic location selection, enabling automated pick-and-drop functionality.
- Employed Raspberry Pi, OpenCV, and machine learning algorithms for real-time decision-making and safe mobility. Developed a Django-PostgreSQL backend with AWS Lambda to ensure scalable, event-driven processing.

Medical Agentic AI Voice Chatbot Private Company *Mar 2025*

- Built a voice-enabled medical agentic AI chatbot using DeepGram for speech input and LangChain for multi-agent orchestration. Designed RAG-based nodes for symptom extraction, diagnosis, treatment recommendation, and fallback handling. Enabled contextual medical reasoning with dynamic and safe response generation.

RecoDyn: RL-Based Dynamic Product Recommender Private Company Jan 2025

- Developed a dynamic product recommendation system using **Reinforcement Learning** (Deep Q-Learning) to personalize user experiences based on real-time session behavior and interaction history. Optimized long-term engagement through reward shaping and integrated the system with a FastAPI backend and FAISS-based product filtering.

Skills

Generative AI, MCP, LangGraph, Langsmith LangChain, RAG, Fine-Tuning, Hugging Face Transformers, Large Language Models (LLMs), LORA, QLORA, Computer Vision, MLOps, Mlflow, AWS, EC2, ECR, S3, IAM, Docker, CI/CD, Lambda, API Gateway, Django, Django-Rest-Framework, FastAPI, PostgreSQL, MySQL, MongoDB, Flask, Predictive Modeling, IoT, Sensors.