Fazeel Asghar – AI Engineer, Data Scientist & Innovator in Computer Vision, Generative AI, and IoT

Introduction

Fazeel Asghar is a **highly skilled and passionate AI Engineer, Data Scientist, and Researcher** specializing in **Computer Vision, Generative AI, Large Language Models (LLMs), MLOps, and IoT technologies**. With an unyielding curiosity for cutting-edge innovations, he has built a strong foundation in **machine learning (ML), deep learning (DL), and data science**.

Having completed a **Bachelor of Science in Information Technology (BS-IT) from Islamia University Bahawalpur (IUB)** with an impressive **CGPA of 3.80**, Fazeel has continuously demonstrated a strong **analytical mindset, problem-solving ability, and expertise in AI-driven applications**. He is **proficient in various AI domains**, including **computer vision, object detection, generative AI, predictive analytics, autonomous systems, and IoT-integrated AI models**.

With a strong passion for **space technology, robotics, and AI-driven automation**, Fazeel envisions contributing to **NASA, SpaceX, or other leading AI and tech companies in the USA**. He aims to be at the forefront of **technological advancements, shaping the future of AI-driven automation, smart systems, and intelligent robotics**.

Academic Background & Achievements

Fazeel has consistently excelled in academics, demonstrating a **deep understanding of IT, programming, and AI methodologies**.

Educational Qualifications

- **Bachelor of Science in Information Technology (BS-IT)**
  - **Islamia University Bahawalpur (IUB)**
  - **CGPA:** 3.80
  - **Specialization:** Machine Learning, Deep Learning, AI, IoT, and Data Science
- **Intermediate (Pre-Engineering)**
  - **Punjab College, Khanpur Campus (Punjab Group of Colleges)**
  - **Marks:** 909/1100
- **Matriculation (Science)**

- o **Government Colony High School, Khanpur**

- o **Marks:** 925/1100

Fazeel has always had a **keen interest in mathematics, programming, and automation**, which led him to explore AI and machine learning in depth.

Technical Expertise & Skills

1. Artificial Intelligence & Machine Learning

- Strong understanding of **supervised, unsupervised, and reinforcement learning**

- Expertise in **classification, regression, clustering, and recommendation systems**

- Proficiency in **deep learning architectures**, including **CNNs, RNNs, GANs, and Transformers**

- Mastery of **state-of-the-art machine learning algorithms** such as:

  - o **Logistic Regression, Decision Trees, Random Forest, XGBoost, KNN**

  - o **Support Vector Machines (SVM), Neural Networks, and Bayesian Methods**

2. Computer Vision & Image Processing

- Expertise in **OpenCV, image segmentation, and real-time object detection**

- Worked on **medical imaging AI models for tumor detection and urine sediment analysis**

- Hands-on experience with **YOLO, Faster R-CNN, SSD, and Mask R-CNN**

3. Generative AI & Large Language Models (LLMs)

- Passionate about **fine-tuning and deploying LLMs like GPT, BERT, and T5**

- Understanding of **text generation, sentiment analysis, and NLP applications**

4. MLOps & Model Deployment

- Experience in **automating ML pipelines** for **scalability and efficiency**

- Knowledge of **Docker, Kubernetes, TensorFlow Serving, and FastAPI**

5. IoT & Edge AI Computing

- Integrated **machine learning with IoT devices** for real-world automation

- Worked on **AI-powered autonomous vehicles and smart wheelchair systems**

- Hands-on experience with **Raspberry Pi, Arduino, and IoT sensors**

6. Programming Languages & Tools

- **Python** (Advanced) – NumPy, Pandas, Matplotlib, Seaborn, TensorFlow, PyTorch

- **C/C++** – Microcontroller programming and robotics

- **SQL** – Database management and querying

Projects & Research Work

Fazeel has worked on numerous **real-world AI projects**, demonstrating **innovation, problem-solving, and cutting-edge technology integration**.

1. Autonomous Small Car – Taxi Simulation (Final Year Project)

- Developed an **autonomous small car prototype** to **simulate a taxi service**

- Integrated **Raspberry Pi, GPS (Neo6M V2 u-Blox), ultrasonic sensors, and OpenCV**

- Implemented **real-time obstacle detection, shortest path planning, and auto-navigation**

2. Medical AI & Healthcare Projects

- **Brain Tumor Detection:** Developed **deep learning models** for medical imaging analysis

- **Urine Sediment Classification:** Used **computer vision to classify medical particles**

- **Smart Wheelchair System:** Designed an **AI-powered wheelchair** with **voice control & autonomous navigation**

3. Predictive Analytics & Time-Series Forecasting

- **Stock Price Prediction:** Used **LSTMs & ARIMA models** for financial forecasting

- **Walmart & Bike Sales Forecasting:** Developed demand prediction models for retail & sales industries

4. IoT-Integrated AI Systems

- Created **smart sensors for automated monitoring**

- Integrated **machine learning models with real-time IoT data streams**

Certifications & Professional Development

Fazeel has completed multiple **prestigious AI and machine learning courses** to enhance his expertise:

- **Machine Learning Specialization (DeepLearning.AI) – Andrew Ng, Stanford University**

- **Data Visualization (IBM Coursera)**

- **BM - Machine Learning with Python (Coursera)**

Leadership, Community Involvement & Extracurricular Activities

1. Students IT Club – Founder & Organizer

- Established an **IT Club at IUB** to **organize workshops, technical events, and training sessions**

- Provided **mentorship and technical guidance to students** in **AI, ML, and Python programming**

2. AI & Research Enthusiast

- Actively **researches AI advancements, publishes insights, and contributes to open-source projects**

- Follows **AI innovations in space technology and robotics**

3. Passion for Space Technology & Future Aspirations

- Aspires to work at **NASA, SpaceX, or leading AI research labs**

- Interested in **autonomous spacecraft, AI-driven space exploration, and robotic automation**

Personal Life & Background

Family & Personal Details

- Name: **Fazeel Asghar**

- Birthplace: **Khanpur, Pakistan**

- Caste: **Bhatti**

- Father: **Mohammad Asghar**

- Mother: **Kulsoom Bibi**

- Siblings: **Three brothers – Raheel, Ammar, and Danial**

Interests & Hobbies

- Passionate about **AI, robotics, and space exploration**

- Loves **coding, problem-solving, and AI research**

- Enjoys **reading tech blogs, traveling, and sharing knowledge on LinkedIn**

Summary

Fazeel Asghar is a **visionary AI engineer, data scientist, and technology enthusiast** with **exceptional expertise in AI, ML, IoT, and space technology**. His relentless pursuit of **innovation, problem-solving, and AI-driven automation** makes him a standout professional in the field.

With **a solid technical foundation, real-world project experience, and leadership in AI & IT communities**, Fazeel is on a path to **transform the AI landscape and contribute to groundbreaking advancements in autonomous systems, space tech, and intelligent automation**.