# MUHAMMAD ABUBAKAR AFTAB

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Github: <a href="https://github.com/abubakeraftab">https://github.com/abubakeraftab</a>

#### **SKILLS**

**Programming:** PYTHON, C++, JAVA, R

Databases: SQL Server 2008, MySQL, PostgreSQL

Other: Springboot, Pyspark, Airflow, ETL/ELT, Sklearn, Beautifulsoup, Numpy, Pandas, Power BI, Matplotlib, GitHub

**Soft Skills:** Excellent communication skills, Strong analytical skills and problem-solving skills **GDPR Compliance:** Knowledge and experience with GDPR data privacy and compliance

#### **EXPERIENCE**

## Professional Freelancer – Birmingham

Jun 2023 – Present

- Achieved 97% accuracy in stroke prediction using Random Forest and statistical analysis in R.
- Designed an end-to-end ETL pipeline for Tokyo Olympics data using Azure services.
- Led COVID-19 analysis, automating ETL with **Python, Airflow, and BigQuery**, and visualizing in Power BI.
- Performed **data scraping** to extract customer reviews and behavior data, enabling sentiment analysis for BA.

## Data Analyst (Industrial Placement) – MEGANEXUS, London

Jan 2023 - Jun 2023

- Reduced response time by 20% by building a Rasa chatbot to automate customer support.
- Improved **A&E visitor forecasts by 10%** by building a **SARIMAX** model on 15 years of data.
- Boosted patient recovery rates by 15% by leading a Power BI initiative using statistical analysis.
- Automated and processed daily **healthcare data** using Python & Airflow, **reducing errors by 30%**.
- Communicated technical concepts clearly to **non-technical stakeholders**, ensuring effective collaboration.

## Associate Software Engineer – SYSTEMS LTD, Lahore

May 2021 - Jan 2022

- Created Springboot module for automated commission and discount calculations in sales transactions.
- Automated cash management with Springboot, enhancing efficiency and streamlining processes.
- Constructed user-friendly **REACT**-based frontend for enhanced financial report accessibility and design.
- Integrated Microservices with REACT, demonstrating deep expertise in working with REST APIs and JSON scripts.
- Applied **HTML**, **CSS**, **Bootstrap** to develop responsive web design.

#### **PROJECTS**

- Solar Panel Detection using Deep learning (Masters Project): Developed advanced deep learning model with Faster R-CNN and YOLO, attaining 90% accuracy for solar panel identification in aerial images.
- British Airways Customer Behaviour Analysis [ML]: Predicted customer behavior using machine learning models like Random Forest and XGBoost, increasing conversions by 15%.
- **Airline Reservation System [ORACLE, SQL]:** Designed and built an airline reservation system using Oracle DB, optimizing performance through clustering and partitioning.

## **EDUCATION & PROFESSIONAL QUALIFICATIONS**

**Birmingham City University** 

Jan 2022 – Jun 2023

Master of Science in Big Data Analytics with Professional Placement (Merit)

**FAST NUCES, Islamabad** 

Jan 2016 – Feb 2021

Bachelors of Science in Computer Science (STEM)

**CERTIFICATIONS**