

# SARTAJ SYED

Birmingham, United Kingdom

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Portfolio

## Summary

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**Software Engineer** with 4 years of experience in **data-driven full-stack development** and **cloud-based solutions**. Skilled in **Python, Java, TypeScript**, and **AWS**, with a proven ability to **communicate technical concepts** to stakeholders and collaborate in cross-functional teams. Passionate about leveraging **data** to improve processes to drive smart, automated solutions.

## Experience

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### Goldman Sachs (Contract)

*Software Developer*

**October 2024 – March 2025**

*Birmingham, United Kingdom*

- Developed a **data-driven application** using **Flask**, **MongoDB** and **React**, enhancing internal workflows and deployed **containerized solution** via **Docker** and **Kubernetes**.
- Built **automated ETL pipelines** to process structured datasets, improving **data accessibility** for **analysis and modeling**.
- Collaborated closely with stakeholders to define **data schemas** and implement rigorous **validation processes**, ensuring high **data quality** and consistency across applications.
- Proactively engaged **cross-functional teams** to clarify requirements and streamline development cycles, resulting in recognition for enhancing collaboration and transparency.

### Doriot AI

*Software Developer*

**August 2023 – October 2024**

*Edinburgh, United Kingdom*

- Developed and deployed a **comprehensive AI-powered fundraising platform** using **FastAPI, Django, React, and AWS**, integrating **AI Agents** for market research and investor insights with a **graph-based recommendation system** leveraging **Graph Neural Networks (GNNs)** for investor matchmaking.
- Integrated **Azure OpenAI** with **advanced Retrieval-Augmented Generation (RAG)** for real-time market research and investor intelligence.
- Developed a **hybrid search system** combining **vector-based and text-based approaches**, processing financial data from sources including Crunchbase, TechCrunch, and funding news.
- Designed **fault-tolerant microservices** using **Redis**, and **Celery**, with robust middleware for rate limiting, and real-time **WebSocket** communications.
- Implemented **structured data pipelines** for investor data preprocessing, handling **1M+ startup-investor relationships** and over **1 billion data points**, improving **model performance, retrieval speed, and scalability**.
- Built a **scalable AWS infrastructure** incorporating RDS, ElastiCache, and EC2, with automated deployment.

### Xactly

*Technical Consultant/ETL Developer*

**February 2022 – July 2022**

*Hyderabad, India*

- Developed **ETL pipelines for high-volume data processing** (2M+ records/month) using Python and SQL, ensuring efficient **structured data transformation**.
- Automated SQL query generation, cutting processing time by 50% and errors by 20%.
- Analyzed client requirements and delivered tailored solutions for sales compensation processes.

- Contributed to new feature development and bug fixes in a **Django**-based backend, supporting end-to-end delivery in an **Agile** environment.
- Developed and maintained **automated test suites** using **Selenium**, ensuring reliable releases across production cycles.
- Owned end-to-end **system documentation** and **knowledge-sharing sessions**, improving collaboration and transparency among technical and business teams.
- Worked directly with clients and stakeholders, collaborating with teams to deliver projects on time in an agile environment. Awarded **Top performer** for my performance with a 25% salary hike

## Education

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**MSc in Computer Science, The University of Edinburgh** | *Merit*

**Sep. 2022 – Sep 2023**

**Modules:** *Applied Machine Learning, Text Technologies for Data Science, Advanced Databases, Software Development*

**Bachelor of Engineering – EEE, Osmania University** | *Distinction*

**Aug. 2015 – Aug 2019**

## Technical Skills

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**Languages:** Python, Java, HTML/CSS, SQL, C#, JavaScript, Typescript

**Technologies/Frameworks:** Django, Spring Boot, Django-Rest Framework, React, Flask, Fast API, ASP.NET, Git, GitLab, Linux, Jira, Scikit Learn, Numpy, Pandas, PyTorch, Keras, CI/CD, OpenCV, PySpark, Spark, Selenium, Docker, Kubernetes

**Databases & Storages:** MySQL, PostgreSQL, Cassandra, MongoDB, Firestore, S3

**Developer Tools:** Jupyter Notebook, VS Code, Pycharm, IntelliJ, Eclipse, Google Cloud Platform, AWS, Postman

**Certifications:** Meta Backend Developer, Meta Database Engineer, Hackerank Advanced SQL

## Projects

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**Lyrics Search Engine** | *Python, Django, Bootstrap*

**January 2023 - April 2023**

- Developed a **lyrics search engine** using Django and Bootstrap, integrating **TF-IDF** and **BM25 ranking algorithms** for precise retrieval.
- Designed and implemented **hybrid search techniques**, improving **search relevance by 20%**.
- Optimized **query ranking and indexing** through **custom weighting strategies** and **context-aware retrieval** for better performance.

**Spotify Song Popularity Prediction** | *Python, Scikit-Learn, Pandas*

**October 2022 - November 2022**

- Analyzed **500K+ song records** to predict song popularity based on **audio features and metadata**.
- Implemented **Decision Trees, Random Forests, and KNN models**, achieving **80% accuracy** on validation data.
- Performed **feature engineering** to improve model interpretability and enhance prediction reliability.

**American Football Contact Detection** | *Python, Keras, Deep Learning*

**January 2023 - April 2023**

- Developed a **real-time contact detection model** for American football using **deep learning-based computer vision**.
- Researched and benchmarked **SVM, ResNet, and EfficientNet**, selecting **YOLOX** for its superior accuracy and real-time performance.
- Optimized **model training** with **custom data augmentation and hyperparameter tuning**, improving detection precision by **15%**.