

Sartaj Syed

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Professional Summary

A seasoned software engineer with a passion for leveraging technology to solve complex problems and drive efficiency. With a master's from The University of Edinburgh and significant experience at Infosys, I have expertise in machine learning, full stack web development, data engineering, cloud development, and DevOps. Demonstrated success in innovative projects, ranging from investor-startup matchmaking to sports analytics. Skilled in multiple programming languages and tools, recognized for academic and professional excellence. Committed to leveraging data and technology to drive impactful insights and contribute to sustainable tech solutions.

Education

- **Master of Science – Computer Science** | The University of Edinburgh | Merit | Sep'22 – Sep '23
Courses taken: Applied Machine Learning, Machine Learning Practical, Text technologies for Data Science, Extreme Computing, Advanced Database Management Systems, Software Development
- **Post Graduate Diploma – CS & AI** | IIIT - D | 8 CGPA | Jan '22 – Dec '22
- **Bachelor of Engineering – EEE** | Osmania University (OU) | Distinction | Aug '15 – May '19

Technical Skills

- **Languages:** Python, Java, SQL, JavaScript, C#, Scala
- **Frameworks & Tools:** Django, Django-Rest Framework, Springboot, ASP.NET, Selenium, Docker, Kubernetes, RESTful APIs, AWS Cloud Services (including Lambdas, S3, EFS, EC2, RDS, Step Functions, Cloudwatch), Google Cloud, Git, Shell Scripting
- **Databases:** MySQL, PostgreSQL, MongoDB
- **Libraries & Packages:** NumPy, Pandas, Matplotlib, Seaborn, Plotly, Scikit-Learn, Open-CV, Pytorch, TensorFlow, Keras, PySpark
- **Front-End:** HTML, CSS, JavaScript, Typescript, Bootstrap
- **Testing Frameworks:** Exposure to unit testing frameworks and E2E testing Frameworks

Work Experience

Software Developer

Aug'23 – Present

Swipeit

- Initiated and led the development of a robust Minimum Viable Product (MVP) for a mobile application, focusing on backend development with Java to ensure a secure, reliable user experience.
- Developed and deployed Spring Boot microservices for seamless RESTful API integration on GCP using Docker containers and Kubernetes, creating, and managing Kubernetes deployment scripts with kubectl, and focusing on automation and scalability.
- Designed and managed the application's infrastructure on GCP, utilizing services such as Firestore, Cloud SQL, and GKE.
- Developed and implemented a CI/CD pipeline using GitHub Actions to streamline development, testing, and deployment processes.
- Directed the implementation of a secure, maintainable, and modular codebase, laying the groundwork for future feature expansions and updates.

ML Software Developer (Part-Time)

Aug'23 – Present

Doriot AI

- Led the development of a web application to enhance investor-startup connections, utilizing Django for backend functionality and React for the frontend.

- Designed, implemented, and optimized machine learning models, including KNN and GAT algorithms, to power the recommendation engine for data-driven matches.
- Developed data pipelines and ETL processes to ensure high-quality data input for machine learning models.
- Conducted rigorous testing and validation of machine learning models to ensure accuracy and performance.
- Dockerized the application and deployed the architecture on AWS, utilizing services such as Lambda, S3, EFS, EC2, and RDS, to streamline development, testing, and deployment processes, ensuring scalability, maintainability, and consistency across environments.
- Monitored and maintained the application, addressing any issues related to performance, security, and reliability.

Software Engineer

Aug'19 – Aug'22

Infosys

Hyderabad

- Designed a data aggregation and analysis pipeline, utilized cloud technologies, such as AWS Lambda, to create an event-driven architecture that responds dynamically to data inputs.
- Standardized data formats across multiple sources, streamlining information flow and improving data analysis processes.
- Drove continuous improvement initiatives, leveraging agile methodologies to enhance team productivity and project turnaround times.
- Conducted system audits to identify and rectify performance bottlenecks, ensuring the delivery of reliable software products.
- Authored detailed technical documentation to support software maintenance and upgrades, facilitating knowledge transfer and team agility.

Academic Projects

- **Web based Lyrics search Engine** - Led a team of 6 to architect and deploy a lyric search engine, crafting a Django backend for robust web service logic and API endpoints.
 - Implemented lyric search functionality using a MongoDB database to store and retrieve song data, applying TF-IDF, BM25, and custom lyrics search algorithms for efficient querying.
 - Designed an intuitive user experience, and JavaScript for dynamic content and search filters.
 - Integrated SVM-based recommender system to provide users with personalized song suggestions based on their search patterns and preferences.
- **Game Collection Management System** – Led a team of 4 to develop a Django-based web platform for game enthusiasts to organize and review their game collections, with features for browsing and managing a personal library.
 - Enabled access to game resources such as house rules, official rules, FAQs, and errata documents, ensuring comprehensive user support.
 - Utilized HTML, CSS, and Bootstrap for constructing a user-friendly interface, with JavaScript to enable interactive features such as sorting and filtering collections.
 - Incorporated a recommendation system that analyzes users' previous purchases, search history, and interests to suggest games, leveraging machine learning for enhanced user engagement.
- **Contact Detection in American Football: A Comprehensive Approach** - Developed models for detecting player contact in American football.
 - Compared the performance of SVM, ResNet-50, ResNet-152, and EfficientNet-B0. Applied image augmentation with ResNet-50 to address overfitting.
 - Evaluated the performance of state-of-the-art object detection models on cropped versus larger images. Found that YOLOX consistently outperformed Faster RCNN and Mask2Former.

Achievements & Leadership Activities

- Infosys top performer and Gec Star awardee (was awarded 25% hike)
- Organized and facilitated a local hackathon for over 500 students and young professionals, fostering innovation and collaboration.
- Coordinated a tech event for underprivileged youth, providing workshops and mentorship to enhance their coding and software development skills.