Rohan Kumawat

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Software Engineer with a strong foundation in **Algorithms**, **API integration**, and **Cloud-native technologies**, driven to innovate and deliver efficient software systems.

EDUCATION

University of Glasgow	Glasgow, Scotland
Master's in Robotics and A.I.	*Sep. 2022 – May 2024*
G.D. Goenka University	Gurgaon, India
Bachelor's of Technology in Computer Science Engineering	*Aug. 2018 – May 2022*

EXPERIENCE

Workshop Instructor — Remote
G.D. Goenka University — *Mar 2021*

- **Led a workshop on the Spotify Recommendation Engine and API**: Taught over 50 students the fundamentals of API integration and filtering techniques, enhancing their understanding of data analysis.
- **Designed interactive modules and practical sessions**: Simplified complex API processes, making them accessible and understandable, which helped students grasp data analysis concetps with ease.
- **Empowered students to apply learned techniques**: Fostered independent problem-solving and coding skills, allowing participants to implement recommendation engines in varied scenarios.

Software Engineer — Remote
Linux World Informatics — *Feb 2020 – Oct 2020*

- **Increased project workflow efficiency by 30%**: By architecting and implementing containerized applications using Docker.
- **Enhanced application scalability by 50%**: Engineered robust cloud-based solutions on AWS and GCP, enabling scalable infrastructure for high-demand applications.
- **Boosted ML model efficiency by 40%**: Collaborated with cross-functional teams to integrate MLOps pipelines, improving the efficiency of machine learning models in production environments.

PROJECTS

AI-Powered Credit Card Fraud Detection System | *MLOps, mlflow, OpenAI, Sk-learn*   Sep 2024 - Present

- **Achieved 95% detection accuracy for fraud classification**: Engineered and deployed a LangChain and OpenAI-powered fraud detection system using Flask, enabling real-time classification of credit card transactions.
- **Improved fraud detection precision by 20%**: Integrated multiple machine learning models (Logistic Regression, Random Forest, XGBoost) to offer dynamic model selection based on user input.
- **Enhanced user interaction and decision-making**: Crafted a scalable web interface that allows users to input transaction details, select fraud detection models, and receive real-time predictions.

AEMA: Approximation and Evaluation of Matching Algorithms for SMTI | *Python*   Sep 2023 – Dec 2023

- **Implemented research-backed algorithms**: Efficiently solve the SMTI problem.
- **Provided insights for practical algorithm selection**: Conducted empirical analysis of SMTI algorithms, identifying optimal solutions for real-world matching scenarios.
- **Delivered actionable recommendations across industries**: Presented findings in technical reports and visualizations, guiding the application of matching algorithms in various sectors.

Spotify Songs Data Analysis | *Data Web App, Python, Streamlit, Plotly, Spotify API*   Jan 2022 – Present

- **Architected a scalable data pipeline**: Processed over 10,000 Spotify songs and artist data points using Python, ensuring efficient and scalable data ingestion for real-time analysis.
- **Optimized data flow with ETL processes**: Constructed ETL pipelines to transform raw API data into structured formats, streamlining data handling for analysis and visualization.
- **Deployed a high-performance web application**: Utilized distributed processing techniques on Streamlit Cloud to handle thousands of user queries with minimal latency, enhancing user experience.

TECHNICAL SKILLS

Skill-Set: Python, SQL, NoSQL, Machine Learning, Natural Language Processing
Deployment Tools: Git, Github, Docker, Google Cloud Platform, AWS, Linux
Libraries: Pandas, NumPy, Matplotlib, Seaborn, Plotly, SKLearn, Streamlit, LangChain, Haystack