

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

Master's in Robotics and A.I.

Glasgow, Scotland

Sep. 2022 – May 2024

G.D. Goenka University

Bachelor's of Technology in Computer Science Engineering

Gurgaon, India

Aug. 2018 – May 2022

EXPERIENCE

Workshop Instructor

Mar 2021

G.D. Goenka University

- Led a workshop on the Spotify Recommendation Engine and API, teaching over 50 students the fundamentals of API integration and filtering techniques.
- Designed interactive modules and practical sessions to demystify API complexities, enabling students to grasp key data analysis concepts.
- Empowered students to apply learned techniques in varied scenarios, fostering independent problem-solving and coding skills.

Software Engineer

Feb 2020 – Oct 2020

Linux World Informatics

- Developed and deployed containerized applications using Docker streamlining project workflows by 30%.
- Engineered robust cloud-based solutions on AWS and GCP, enabling scalable infrastructure for high-demand applications.
- 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

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

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

- Implemented advanced research algorithms to solve the Stable Marriage Problem with Ties and Incomplete Lists (SMTI).
- Conducted empirical analysis of algorithms for SMTI, providing valuable insights for practical matching scenarios and algorithm selection.
- Presented findings in technical reports and visualizations, delivering actionable recommendations for applying matching algorithms across various industries.

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

- Architected and implemented a data pipeline for extracting and processing over 10,000 Spotify songs and artist data points using Python, ensuring efficient and scalable data ingestion.
- Constructed ETL processes to transform raw API data into structured formats, streamlining data flow for analysis and visualization.
- Deployed a fully scalable web application on Streamlit Cloud, utilizing distributed processing techniques to handle thousands of user queries with minimal latency.

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