# **ADIT SHRIMAL**

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#### **EDUCATION**

# M.S. in Data Science, University of San Francisco

Jul 2022 - Present

Relevant Coursework: Machine Learning, Linear Regression, A/B Testing, Distributed Computing (Spark), Relational Databases (SQL), NoSQL, MLOps, Data Acquisition

### B.E. in Computer Engineering, University of Mumbai

Jul 2015 - May 2018

Relevant Coursework: Data Structures & Algorithms, Computer Networks, Machine Learning

## **PROFESSIONAL EXPERIENCE**

Amazon Web Services Nov 2022 - Present

Machine Learning Intern

- Designed and implemented Recurrent Neural Networks (RNNs), specifically the GRU4Rec model, using
  PyTorch and the ReChorus library for advanced sequential recommendation tasks.
- Utilized **SHAP** and **KernelSHAP** to explain model predictions and identify features with the highest impact on recommendations, improving **model interpretability**.
- Integrated **TimeSHAP** to provide time-based explanations of recommendations, enabling users to understand better why specific items are being recommended at a given time.

Fractal Analytics Nov 2021 - Jun 2022

Data Engineer

- Designed data-driven solutions for client enterprise data warehouses using GCP (Google Cloud Platform) products (Composer, Dataflow, BigQuery, Cloud Storage), increasing data processing efficiency by 30%.
- Implemented an end-to-end data encryption strategy with Google Tink and KMS, reducing security incidents by 80% and ensuring compliance with data protection regulations.
- Won Star Award 2022 for delivering outstanding solutions and solving complex technical customer challenges in a short period at Fractal Analytics

Bewakoof Brands Pvt. Ltd. Feb 2020 - Nov 2021

Data Scientist

- Constructed a cost-efficient **GCP** data pipeline (40% cost reduction) with improved scalability and fault tolerance.
- Devised a **product ranking** auto-sort algorithm, boosting CTR (click-through rate) by **26**% and A2C (add-to-cart rate) by **12**%.
- Optimized personalized recommendations employing **ALS** (used implicit ratings), resulting in a significant **14%** increase in RPTI (revenue-per-thousand impressions).
- Developed a system to send bulk **emails** using Amazon SES with a **10x ROAS** (return-on-ads-spend) leveraging **RFM** (Recency-Frequency-Monetary) **segmentation** for user base selection.
- Recognized as Employee of the Month for October '20 and Employee of the Quarter for Q4 FY 20-21.

Reliance Jio Jul 2018 - Feb 2020

Data Engineer

- Built a **streaming data pipeline** using Kafka, Flink & Elasticsearch, handling millions of events in real-time and outperforming existing pipelines with a lag of over two hours.
- Constructed a data warehouse with HDFS, Spark, and Cassandra, enabling systematic computational analysis for Product Managers and Leaders.
- Automated raw data compression (80% reduction) in Hadoop Cluster using Airflow, Spark, and MySQL, ensuring storage capacity remained below 20% and optimizing external storage.

### **TECHNICAL SKILLS**

- Programming Languages: Python, Java
- Databases: MySQL, MongoDB, Cassandra, Elasticsearch
- Big Data & Cloud: Kafka, Spark, Flink, HDFS, Airflow, Google Cloud Platform Pub/Sub, BigQuery, Dataflow, Key Management Service, Cloud Functions
- Machine Learning: Linear Regression, Logistic Regression, Decision Trees, Random Forest, Kmeans, Gradient Boosting Machines (XGBoost), SVD, PCA, Collaborative Filtering (ALS), Feature Engineering, and Model Evaluation
- MLOps: MLFlow, Data Version Control (DVC), CI/CD, Docker, Kubernetes, API design (Flask)