

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, Statistical Modeling, Distributed Computing (Spark), Relational Databases (SQL), NoSQL, MLOps, Data Engineering (Kafka, Hadoop, HBase, Hive, Spark, ETL, Schema design and Dimensional Data Modeling), Deep Learning

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

- Designing and implementing Recurrent Neural Networks (**RNNs**), particularly the **GRU4Rec** model, using **PyTorch** and the **ReChorus** library led to achieving a notable **NDCG@10** of **0.42**.
- Leveraged **SHAP** and **KernelSHAP** to explain model predictions and identify features with the highest impact on recommendations, improving **model interpretability**.
- Incorporated **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 data warehouses using **GCP** (Google Cloud Platform) products (Airflow, Dataflow, BigQuery, Cloud Storage), reducing data processing time by **30%**.
- Established 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 challenges.

Bewakoof Brands Pvt. Ltd. Feb 2020 - Nov 2021

Data Scientist

- Worked within an **Agile** framework to construct 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%**.
- Enhanced personalized recommendations employing **Alternating Least Squares** (used implicit ratings), resulting in a significant **14%** increase in RPTI (revenue-per-thousand impressions).
- 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

- Constructed a **streaming data pipeline** using Kafka, Flink & Elasticsearch, handling **~150k/sec** events in real-time with zero data lag and outperforming existing pipelines with a data lag of two hours.
- Adopted **Agile** methodologies to construct a **data warehouse** with HDFS, Spark, and Cassandra, enabling systematic computational analysis for Product Managers and Leaders.
- Executed a successful Proof of Concept (PoC) for deploying analytics pipelines on **Kubernetes** for two Jio media applications, demonstrating the feasibility and efficiency of containerized data processing.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, Bash
- **Databases:** MySQL, MongoDB, Cassandra, Elasticsearch
- **Big Data & Cloud:** Kafka, Spark, Flink, HDFS, Airflow, GCP (Pub/Sub, BigQuery, Dataflow, Key Management Service, Cloud Functions), AWS (Kinesis, S3, Lambda, Redshift, Glue, Athena)
- **Machine Learning:** Linear Regression, Logistic Regression, Decision Trees, Random Forest, Kmeans, Gradient Boosting (XGBoost), SVD, PCA, Collaborative Filtering (ALS), Feature Engineering, and Model Evaluation, PyTorch
- **MLOps:** MLFlow, Data Version Control (DVC), Git, CI/CD, Docker, Kubernetes, API design (Flask)
- **Data Visualization:** Tools - Tableau, Metabase, Kibana, Libraries - Matplotlib, Seaborn