

Saif Jawaid

Machine Learning Scientist

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SUMMARY

I'm a full-stack machine learning scientist with experience in building end-to-end ML systems. I've led projects in search, ranking, recommendations, and parsing, including multi-agent systems with self-optimization, observability, and advanced text extraction.

WORK EXPERIENCE

Senior Machine Learning Scientist

Indeed, Bangalore, India

Feb 2025 - Present

Revamping Indeed's resume parsing pipeline into a dynamic, agentic system:

- Transformed the static single-model parser into a multi-agent framework capable of intelligent model selection for parsing and text extraction.
- Designed an agentic observability service that evaluates model performance, identifies field-level errors, and feeds back signals to the routing agent.
- Enabled self-optimizing model traffic routing, where poorly performing models are automatically deprioritized and gradually re-evaluated before scaling traffic back.
- Developed state-of-the-art PDF text extraction modules to improve upstream input quality, directly enhancing overall parsing accuracy and downstream applications.

Lead Machine Learning Scientist

Myntra, Bangalore, India

Jul 2019 - Jan 2025

- Homepage & PDP** : Built dynamic ranking systems using multi-armed bandits, RoBERTa, and nearest-neighbor search. Created offline evaluation pipelines for recommendations in PySpark.
- Search** : Led projects in query rewriting, semantic search, and multi-layered ranking using FAISS, Transformers, GPT-4, RLHF, and XGBoost. Rewrote legacy cohort sort in PySpark, reducing runtime from 14 hrs to less than 45 mins. Contributed to 26% YoY RPU growth. Received CEO Hall of Fame and multiple quarterly awards.
- PDP** : Engineered an offline evaluation pipeline for similar and cross-sell recommendations in PySpark
- Payments & Cross-Platform** : Improved payment CTR by 12% using Word2Vec and XGBoost. Built GRU-based in-session purchase intent model for coupons and personalized notification campaigns, boosting CTR by 7%.

Data Science Intern

ABInBev, Bangalore, India

Jan 2019 - Jun 2019

Engineer

Shapoorji Pallonji, Kolkata, India

Aug 2016 - Jun 2017

SKILLS

- Programming Languages**: Python, SQL, PySpark, Go, Rust, R, Airflow, Databricks, Git, MLflow, CUDA, NUMBA, Ray, Docker, Kubernetes
- ML Architectures**: Machine Learning, Deep Learning, Recommendation Systems, PyTorch, NumPy, Pandas, Keras, Jax, MLlib, sparkNLP, Hugging Face Transformers, ONNX, MLOps

PUBLICATIONS

- Diversify and Conquer: Bandits and Diversity for an Enhanced E-commerce Homepage Experience - Fashionxrecys Workshop, 17th ACM Conference on Recommender Systems, 2023 · Sep 25, 2023 [Link](#)
- Fine-Grained Session Recommendations in E-commerce using Deep Reinforcement Learning - 1st Workshop on End-End Customer Journey Optimization (KDD Workshop) · Oct 20, 2022 [Link](#)
- MULTI-ASSET PORTFOLIO OPTIMIZATION WITH STOCHASTIC SHARPE RATIO UNDER DRAWDOWN CONSTRAINT - Annals of Financial Economics · May 20, 2020 [Link](#)
- Application of Feature Selection and Extraction techniques on Indian Stock Market - Statistical Methods in Finance 2018 · Dec 18, 2018 [Link](#)

EDUCATION

Indian Statistical Institute

MTech - Operations Research

Kolkata, India

Jul 2017 - Jun 2019

Jadavpur University

BTech - Engineering

Kolkata, India

Aug 2012 - May 2016