

Guramritpal Singh Saggu

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Introduction

- Senior Software Engineer with 5+ years experience designing and scaling data engineering and ML platforms, delivering reliable, production-grade systems that accelerate business value.
- Proven leader in platform development and system design, specializing in building and optimizing end-to-end data pipelines and ML solutions that drive organizational efficiency, compliance, and innovation.

Education

Indian Institute of Information Technology & Management, Gwalior
Integrated B.Tech + M.Tech in Information Technology

July 2017 – June 2022
CGPA: 8.64/10.0

Work Experience

Jungle Games
Data Engineer III

July 2025 – Present
Bangalore, India

- Lead **GenAI and ML platform** initiatives, building AI agents and enhancing Databricks capabilities to accelerate model development and operational efficiency.
- Architected and deployed a **dbt-powered in-house Feature Store** enabling cross-team self-service, reducing feature development turnaround by 50% and cutting feature refresh runtime by 70%, accelerating **model iteration and deployment cycles**.
- Developed **AI agents** leveraging Genie, LangChain, MLflow and Mosaic AI, automating workflows for finance and risk teams; cut manual analyst time by 45 minutes per day, boosting productivity by **25%**.

Data Engineer II

Nov 2023 - June 2025

- Designed and implemented end-to-end **Data Discovery and Lineage** capabilities using DataHub, deploying LLaMA-based models that auto-generate table and column descriptions, improved metadata quality and reduced onboarding time by 40% across data teams.
- Built a proprietary **Kafka Connect** Single Message Transform (SMT) for client-side field-level PII encryption and decryption, ensuring compliance for data pipelines.
- Managed **Starburst Data Warehouse**, optimizing query execution & resource allocation to improve query speed by 20% & reduce operational costs by 14%, while managing scalable EKS infrastructure with Helm.
- Configured Databricks **Lakehouse Monitoring** framework with drift detection and anomaly alerts, enabling proactive data quality management and reducing data incident resolution time
- Developed **PySpark-based ETL pipelines** on Databricks for key business KPIs, integrated DQ checks, migrated legacy alerts, & created unified cross-selling features to reduce acquisition costs.

Slice

Software Engineer II

May 2023 – Nov 2023
Bangalore, India

- Designed a scalable ML platform on EKS leveraging EMR, Airflow, Delta Lake, **MLflow**, and Seldon, allowing streamlined end-to-end data workflows and model management.
- Created a real-time feature store integrating 100+ features across Confluent **Kafka**, **KSQL**, and MySQL, achieving sub-second event refresh and supporting low-latency streaming applications.
- Optimized performance of numerous tables by improving partitioning, storage strategies, and re-design of heavy queries that led to 10x reduction in costs.

Software Engineer I

Jan 2022 - April 2023

- Established ML platform on Databricks, incorporating feature store, model **registry**, **serving**, and **monitoring**, integrated 15+ models, shortening model operationalization time from 5 days to under 2 days.
- Implemented scalable ETL pipelines by migrating batch workflows to **Spark Streaming**, significantly improving real-time data processing reliability and latency.

- Recognized with **Most Valuable Person** award for quarters (AMJ'22, JFM'23) for driving platform innovation and operational excellence.

Goldman Sachs

Summer Analyst

June 2021 - Aug 2021

Bangalore, India

- Equity & Synthetic Product Group Pre-Execution Team of the Global Markets division.
- Worked on intraday pre-borrow feed enhancement & decommission of unused stock loan containers using internal languages and tools.

Rakuten

Technical Intern

Feb 2021 - May 2021

Bangalore, India

- Collaborated as a member of the DE team to design & develop data pipelines, implement data governance and federation solutions that leverage Airflow, Amundsen, MinIO, Trino, YugabyteDB, & Kubernetes.

Hackerearth

Subject Matter Expert

Mar 2020 - June 2022

Remote

- Served as a machine learning problem setter & technical assistant, responsible for designing, developing, reviewing challenges & solutions for hiring, machine learning, and data science assessments on the platform.

CoulombAI






Software Engineer Intern

June 2020 - Mar 2021

Remote

- Worked on real-time estimation of state of charge, health & driver analysis of Electric Vehicle.
- Deployed robust back-end APIs for data ingestion pipelines utilizing Flask, PyODBC and MSSQL with docker-based containerization and Nginx reverse proxy on AWS cloud infrastructure.

Publications and Articles

PII-SMT: Client-Side Field-Level Encryption/Decryption for Apache Kafka 	Medium Blog, 2025
Unlocking Data Potential with Starburst: Efficiency, Speed & Cost-Effectiveness 	Success Story, 2024
Hybrid Deep Convolutional Neural Network Model for Diagnosis of Pneumonia 	Research Paper, 2024
DepressNet: Multimodal Hierarchical Attention Model for Depression Detection 	Research Paper, 2022
Efficient Classification for Age and Gender of Unconstrained Face Images 	Research Paper, 2021

Projects

HR Policy Automation Bot

Self-Learning

- Delivered a Slack-based HR chatbot automating responses to policy-related queries such as leaves and holidays using AWS Bedrock Agent and Anthropic Claude 3 Haiku.
- Integrated Amazon OpenSearch Serverless vector database enabling efficient, semantic-based query retrieval. Improving employee satisfaction and reducing manual HR workload significantly.

Explainable & Interactive ML

M.Tech Thesis Project

- Developed a framework for explainable AI (XAI) that enables model interpretability and interactive diagnosis for diverse user groups. Implemented monitoring pipelines for feedback-driven model refinement, enhancing transparency and trust in ML models used in production.

Detection of Depression & State of Mind

B.Tech Thesis Project

- Created multimodal BLSTM RNN models for depression and emotional state detection, achieving RMSE of 5.96 and CCC scores of 0.531 (valence) and 0.486 (arousal).

Skills

Programming: Python, C++, C, SQL, JavaScript

Tools: Databricks, Delta Lake, dbt, Spark, Kafka, Airflow, MLflow, Feature Store, DataHub, Data Modeling

GenAI LLM Stack: LangChain, RAG, Vector DBs, AWS Bedrock, Mosaic AI, MCP

Cloud & DevOps: AWS, Docker, Kubernetes