Sunil Meena

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EDUCATION

Indian Institue Of Technology, Bombay
B.Tech. in Electrical Engineering | CGPA: 8.0/10.0 | Graduation: 2021

SKILLS

Languages	Java, Python, C++, SQL	**Frameworks**	SpringBoot, PyTorch, TensorFlow
Big Data	Spark, Hadoop, Kafka	**Databases**	Elasticsearch, Redis, PostgreSQL
Cloud	GCP, Azure	**Tools**	RESTFul API, Docker, Git, Jenkins

WORK EXPERIENCE

Jio Platforms, Mumbai
Software Engineer | June 2021 - Present

Realtime Analytics and Search Infrastructure

- Designed **Spark** microservices that lifted TPS by **50%**, enabling **real-time** analytics over billions of records
- Achieved **60%** reduction in query latency via pre-computation and compaction pipelines allowing faster response time and report generation
- Architected **Elasticsearch** clusters (**30–300 GB/day** ingest) with optimized shard distribution, reduced downtime via replica planning and rolling restarts
- Slashed response times by 32% using **Redis** for in-memory caching with scroll queries and composite aggregations in **Elasticsearch**, enhancing user experience
- Built an MS with **Kafka** and **Spark** to ingest and process failure-codes across the network at **100k rec/min**

LLM Applications

- Designed an **LLM-based chatbot** that offers auto-suggested questions and utilizes **Redis** for caching frequently asked Q&A for faster responses
- Enhanced the Retrieval-Augmented Generation(**RAG**) pipeline by using a **CrossEncoder**-based re-ranking model and chunk-indexing for improved performance
- Built a **Spam SMS detector** using KNN, SVM, and Logistic Regression on embedding vectors. Achieved F1-score of 0.99 and 3600 TPS via optimized ONNX weights

Systems Thinking

- Engineered statistical dashboards visualizing real-time network hierarchy metrics, enabling proactive outage detection and contributing to a **15%** reduction in **Customer Churn**
- Implemented **high-availability** microservice systems in **active-standby** and **active-active** configurations, ensuring resource management, consistent state management, and robust monitoring for minimal downtime

PATENTS

METHOD AND SYSTEM OF DETECTING ANOMALY IN A NETWORK
Indian Patent No. 565351 – April 2025

- An intelligent framework that leverages statistical models and ML to identify anomalous patterns in network behavior in real-time, enhancing fault detection, proactive alerting, and network resilience
- **Inventors:** Sunil Meena, et al.
- **Status:** Granted **Patent Link:** 565351.pdf

PROJECTS

Domain Adversarial Learning of Neural Nets *Feb 2020 – July 2020*

- Achieved 50% uplift in accuracy on cross-domain classification using domain-invariant feature learning with minimal data, outperforming fully supervised models baselines on the target domain

Semi-Supervised Mammograms Classification *Jan 2020 - April 2020*

- Used transferable feature learning using self-supervised **Jigsaw Puzzle Reassembly** on **DICOM** images for medical imaging tasks, achieving 40% accuracy boost over supervised baselines

COURSEWORK

Fundamentals of Digital Image Processing, Foundation of Intelligence and Learning Algorithms,
Advanced topics in Deep Learning, Speech and Natural Language processing