Sunil Meena

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EDUCATION

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

COURSEWORK

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

SKILLS

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

WORK EXPERIENCE

Jio Platforms Limited, Mumbai
Software Engineer | June 2021 - Present

Realtime Analytics Platform
- Designed Spark-based 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.

Search Infrastructure at Scale
- 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-backed in-memory caching with composite aggregations, enhancing user experience.

LLM Applications
- Built a LLM-based chatbot that shows auto-suggested questions and caches frequent Q&A using Redis for faster responses.
- Upgraded RAG pipelines using cross-encoder reranking and chunked indexing, enhancing answer accuracy.
- Created a spam SMS detector ensemble (KNN, SVM, LR), reaching F1 = 0.99 and 3600 TPS using 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.

PATENTS

METHOD AND SYSTEM OF DETECTING ANOMALY IN A NETWORK
Indian Patent No. 565351 – April 2025
- An intelligent framework that leverages statistical models and machine learning 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*
- Learnt the transferable features using self-supervised jigsaw puzzle reassembly on DICOM images for medical imaging tasks, achieving 40% accuracy boost over supervised baselines.