

Kabir Raj Singh

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Technical Skills

Programming: Python, Scala, Java, Rust, C++, TypeScript, JavaScript

AI / GenAI: LLM Systems, Agentic Workflows, RAG, LLM Guardrails & Safety, Prompt Engineering, NLP, Transformers, LangChain, LlamaIndex

Distributed Systems: Kubernetes (CKAD), Kafka, OpenSearch, Elasticsearch, Microservices, Streaming Pipelines

Platform & Observability: OCI, AWS, Docker, Prometheus, Grafana, Custom Metrics, Alerting

Professional Experience

Oracle India Pvt. Ltd. — *Platform Software Engineer* Aug 2024 – Present

- **Engineered** & operate multi-region **petabyte-scale** log analytics platform using **OpenSearch**, **Kafka**, Scala on OCI **Kubernetes** — ingests **9 PB/day** of logs with **sub-5s p99** query latency at peak throughput.
- **Built** custom MCPs from scratch for **Opensearch**, **Kibana**, **Log-Processing platform** for cluster operations & SOC investigations — becoming the **most** use method of accessing the platform for analysis and development .
- **Designed agentic LLM workflows** for automated security rule generation & anomaly detection — cut manual rule creation effort by **70%** and identified previously undetected anomaly classes.
- **Implemented** safe, controlled **LLM query interfaces** over **OpenSearch** clusters — enabled automated log investigations & root-cause analysis for significant **Tier-1** incidents.
- **Architected** advanced observability & alerting pipelines with **Prometheus**, **Grafana** & custom metrics exporters — improved visibility and reduced incident triage time across hundreds of microservices.

Tally Solutions Pvt. Ltd. — *Software Developer Intern* Oct 2023 – Jan 2024

- **Developed** reimbursement flow application using lightweight ML models for text and image processing from scratch — streamlined end-to-end workflows.
- Recognized as **Budding Tech Genius** for top technical contributions among intern cohort.

Samsung Research Institute Bangalore — *Software Developer Intern* Jun – Jul 2023

- **Optimized** Android voice assistant wake-up pipeline and ASR processing — significantly enhanced trigger reliability and user interaction.

Research Publications

ECGText: Maximizing GPT Capabilities for Enhanced Text Generation and Emotional Insight Springer [Link]

- **Designed** emotionally-aware text generation pipeline integrating GPT models with sentiment and emotion classification — evaluated using cosine similarity, winnowing, POS distribution analysis, and sentence structure statistics.

ECGText: Crafting Emotional Texts through GenAI IEEE [Link]

- **Developed** emotion-controlled generation framework combining LLMs with **RoBERTa** (fine-tuned on Go-Emotions dataset) + iterative optimization pipeline — achieved superior emotional fidelity and linguistic coherence.

Selected Projects

EthicSecure.AI — **Compliance-Aware LLM Gateway** [Demo]

- **Built** production-ready policy-aware **RAG** gateway to block unsafe LLM outputs — leveraged **LlamaIndex**, **Qdrant** vector DB & semantic routing for low-latency compliance enforcement.

TicketinSite.AI — **AI-Driven Product Review Analytics** [Link]

- **Created** end-to-end platform aggregating & analyzing reviews from Twitter, Reddit, Google Play using LLM-powered spam filtering, translation & clustering — produced actionable issue clusters and sentiment dashboards.

ESS2 Claim Surveillance App

- **Engineered** full-stack application (**Next.js** frontend + **Flask** backend) for automated invoice/expense claim processing with OCR — reduced manual data entry by **50%**.

Education

Jadavpur University — B.E. Computer Science & Engineering, GPA: 8.38/10 2020–2024

Burnpur Riverside School (CBSE) — Higher Secondary, 96.2% 2020

Certifications & Achievements

Certified Kubernetes Application Developer (CKAD) Linux Foundation 2026

- Winner: DevRev Forge 2024 (1000+ participants), Tally CodeBrewers 2023 (10,000+ participants)
- Winner: Best Use of **LlamaIndex** — Advanced RAG Hackathon (Vectara)
- 2nd Runner Up: Awiros Vision Appathon (Intel), innovAItE 2024 (M&G Financial Services) and 10+ hackathons