Rahul Indra

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Senior Software Engineer – Infrastructure & Distributed Systems

Summary

Senior Software Engineer (SRE) with ∼ 6 years of experience building and operating large-scale distributed systems at Big Tech scale. Specialized in infrastructure reliability, optimizations, cost governance, and observability platforms. Proven track record in delivering $200M+ cost savings, reducing severe production incidents, and leading cross-team initiatives on ML training, streaming, and data platforms.

Experience

Meta Platforms, Inc. London, UK
Production Engineer (Senior+ level scope) Nov 2021 – Present

– Leading a 6-person team of (SWEs+PEs) in Scribe (Meta's distributed log and messaging platform), owning billing and cost attribution governing ∼ 1B in annual infra spend and hundreds of TB/s read throughput. Designed automated workload criticality inference across producers and consumers to enable safe, priority-aware load shedding at peak demand. Built a centralized quota and enforcement service backed by revamped, fine-grained resource metrics and supply–demand modeling, enabling smart, cost-aware quotas that gracefully degrade least revenue-critical workloads first.

– Built a centralized metadata and lineage service for ML feature engineering across **10+ systems**. Performed read-fanout and cross-regional traffic analysis to identify peak-hour network spill and inefficiencies, enabling producer-consumer awareness. Re-architected feature logging with **per-consumer filtering, automated feature reaping, and consumer-side Memcache caching, reducing datastore and network overhead by 80%** and delivering ∼ 200M$ in annual cost savings, with ∼ 200M+$ additional savings scoped.

– Built a production-traffic simulation and deterministic replay service by introducing end-to-end application logging across client and service binaries to capture configuration state and usage patterns. The system ingests logs in real time to synthesize production-like clients in sandbox environments, enabling CI/CD-integrated A/B testing as well as ad-hoc local replays for engineers. This framework reduced severe production incidents from **10+** to **1–2 per month**, significantly lowering data loss and revenue impact.

media.net Mumbai, India
Software Engineer (SRE) Jul 2020 – Nov 2021

– Owned reliability, scalability, and operations for ad-serving and analytics platforms processing billions of requests per day.

– Operated and scaled large Hadoop, Druid, Kafka, and Elastic Stack deployments supporting real-time BI and revenue reporting.

– Built unified observability and led reliability initiatives that reduced operational toil by **60%**, saved **$3M+** annually in on-call and infrastructure costs, and drove a sustained **2–3%** uplift in ad revenue.

CERN (European Organization for Nuclear Research) Geneva, Switzerland
Google Summer of Code 2020 Student Developer May 2020 – Aug 2020

– Architected and implemented an intelligent monitoring and alerting platform for CERN's CMS distributed computing infrastructure serving **thousands** of researchers worldwide.

– Led cross-institution alignment on system design and implementation, enabling adoption of a shared Kubernetes-based monitoring stack.

– Automated alert correlation and silencing to reduce operational toil and improve the scalability and long-term evolution of production monitoring. - GSoC Link Journal Link

media.net Mumbai, India
Software Engineering Intern Dec 2019 – Jan 2020

– Designed disk performance and utilization monitoring with predictive alerting for production clusters.

– Built anomaly detection pipelines that proactively prevented multiple revenue-critical outages, saving an estimated **1,000+** engineering hours annually.

Xelpmoc Design & Tech Kolkata, India
Software Engineering Intern May 2018 – Jun 2018

– Built location intelligence and store prediction frameworks using DBSCAN clustering and Google POI APIs.

– Influenced expansion strategy decisions with projected **10% revenue uplift** for partner businesses.

Publications

– The evolution of the CMS monitoring infrastructure - Link

– Breaking Captcha System with Minimal Exertion through Deep Learning: Real-time Risk Assessment on Indian Government Websites - Link

Education

Indian Institute of Engineering Science and Technology Shibpur Shibpur, India
B.Tech in Computer Science & Technology Jul 2016 – Jul 2020