Priyanshu Sharma

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SUMMARY

Experienced leader specializing in SRE engineering, focusing on developing tooling, monitoring, logging, testing, and automation for over 100 microservices at a large scale. Hands-on leader well-versed in building and maintaining high-performing teams to deliver software across a large customer base. Demonstrates leadership skills in team management, project scoping, execution, and driving successful outcomes. Committed to continuous growth and making significant impacts on billions of lives.

WORK EXPERIENCE

Senior Software Engineer **(Team - SRE Engineering)**

Blinkit (Zomato), Bengaluru, India (January 2022 – September 2022)

- Lead the SRE Team focused on maintaining scalability and reliability of the microservices.
- Migrated the entire infrastructure from EC2 to K8s (AKS), resulting in saving up to $30,000 USD monthly.
- Designed the org-wide telemetry system using OpenTelemetry, Grafana, and Prometheus, resulting in a 7% reduction in downtime.
- Standardized the alerting system using Opsgenie and PagerDuty, resulting in a 9% faster resolution.
- Set up the org-wide status page for tracking component failure and incident reporting.
- Migrated the entire analytical and data science infrastructure to the Azure Infrastructure (AKS), due to better costing and a better Power BI Tooling Ecosystem, resulting in a reduction in costs of approximately $44,000 USD monthly.

Senior Software Engineer **(Team - DevOps Engineering)**

Blinkit (Zomato), Bengaluru, India (January 2021 – December 2021)

- Configured the end-to-end Jenkins CI/CD pipeline for more than 30 Java/Python/Elixir microservices.
- Standardized and configured the Blue-Green deployment strategy for critical components.
- Migrated all microservices (100+) to Managed RabbitMQ and Elasticache, cutting average API latency by 5%.
- Migrated the org-wide deployment from Ansible to Google Skaffold, reducing our bad deployments by 10% and allowing us to use diverse profiles for Staging, Preprod, and Production Environments.
- Set up the A/B testing deployment strategy using HAProxy, resulting in quicker product iteration.

Software Engineer **(Team – Database Engineering)**

Blinkit (Zomato), Bengaluru, India (March 2020 – December 2020)

- Led the Database Team focused on improving performance and reliability of the databases.
- Improved the performance of databases by implementing the Primary-Secondary (Redis-Postgres) Pattern for critical and accelerated microservices, reducing average latency by 32% to 35%.
- Developed Automatic Database Vacuum tooling and monitoring for SQL and NoSQL databases using Prometheus Custom Exporter, New Relic, and Pganalyze, reducing database downtime by 7%.
- Developed the event streaming database for consistency-critical microservices using Commanded, Phoenix, and Ecto Framework of Elixir.

- Responsible for partitioning and sharding the databases, dividing them into Read and Write-only servers for better performance and reliability, reducing overall latency by 22% to 24% on average.
- Developed the strategy for "IntToBigInt" migrations of large-scale databases (~20 PB) and set up the daily partition-replica job for the Postgres RDS Database (PGCron, PGPartman, PGStats).

Software Engineer **(Team – Full Stack Engineering)**

Blinkit (Zomato), Bengaluru, India (May 2019 – February 2020)

- Experienced in developing more than 30 large-scale distributed systems and client-server architectures, primarily written in Django, FastAPI, Phoenix, Spring Boot, and Go.
- Implemented a distributed and asynchronous task queue architecture using Python Celery tailored to meet specific requirements. Reduced memory utilization for the API Server by 8 to 12%.
- Built critical and performance-oriented backends using the CQRS Pattern. Integrated the Live Weather and Map Service using the Geospatial Extension PostGIS to provide real-time order updates.
- Worked on improving, refreshing, managing, and monitoring the critical B+ and R+ Database Indices of the performance critical services.
- Migrated 10+ Elixir/Java/Python/.NET Microservices to Managed RabbitMQ and Elasticache, cutting API latency by 27%.
- Led the front-end team in building the Org-wide UI Component Library based on Ant Design.
- Adapted and standardized the Micro-Frontend Architecture for the entire UI, using Runtime Module Federation, resulting in quicker product iteration by 5% to 10%.
- Built the "React-Native" app for managing the Supply Chain Delivery Fleet and Orders Distribution, improving our fleet onboarding by 9% to 10%.

RESEARCH EXPERIENCE

UCR NLP Lab, Riverside, CA, US (March 2023 - Current)

- Enhanced RAG Performance using LLM-driven embedding extraction.
- Extensively studied evaluation methodologies with LLMs and LLM-based Agents.
- Explored different vector database indexing techniques using FAISS and Milvus.

INTERNSHIP EXPERIENCE

Senior Software Intern

KayaPay, San Francisco, CA, US (June 2023 – September 2023)

- Designed and architected the core product and developed various RESTful APIs using FastAPI and Postgres.
- Set up the entire infrastructure from scratch using Terraform, Pulumi, Docker, and Kubernetes.

EDUCATION

M.S. (Computer Science) CGPA - 3.79 / 4.00 University of California - Riverside, CA, US

B.Tech. (Computer Science) CGPA - 9.08 / 10.00 Vellore Institute of Technology, TN, India

TECHNICAL SKILLS

Languages - Python, SQL, Elixir, C++, Java, .NET, JavaScript, CUDA, Go.
Database - Postgres, MySQL, Amazon Aurora, Amazon RDS, Neo4j.
Frameworks - Django, FastAPI, Phoenix, React, React Native, GraphQL, PostGIS, KeplerGL.
Tools - Docker, Kubernetes, Skaffold, NewRelic, Opsgenie, Grafana, Sentry, Jenkins, Prometheus.
Technology - Redis, RabbitMQ, Celery, Apache Kafka, Hadoop, HAProxy, Consul, Vault, Nginx, RESTful.
NLP Tools – Ollama, FAISS, LlamaIndex, RAGAS, Langchain, DSPy, Autogen, CrewAI.
LLMs – Llama1, Mistral, Cohere Command R, Llama2, Gemma, Llama3, GPT Family.