# **SURYA RAMAN**

## ENGINEERING LEADER. DOG PARENT. MOTORCYCLE ENTHUSIAST.

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#### **Skills**

Node.js	TypeScript	MySQL	PostgreSQL	Elasticsearch	Kubernetes	Docker
Python	Golang	Redis	MongoDB	Kafka	OpenTelemetry	Git

## **Work Experience**

# Engineering Manager | yellow.ai

JAN 2024 - PRESENT, TORONTO, CANADA

- Owned and scaled the complete messaging infrastructure (channels & integrations) for the yellow.ai GenAl platform, enabling the **reliable processing of over 8 billion messages** per year.
- Deployed a new proxy solution that streamlined data transfer between all <u>yellow.ai</u> regions, resulting in a **reduction of approximately \$80,000** in annual cloud egress and cross-zone costs.
- Led a major network architecture initiative that virtually eliminated cloud egress, cross AZ, and data storage costs leading to an **estimated annual savings of \$120,000**.
- Re-architected a core service, decreasing its baseline pod count by over 90% and achieving **estimated annual savings of \$7,000.**
- Built a self-serve RAG pipeline (using agentic chunking, vector databases), achieving a **100% reduction in customer data ingestion wait times**.
- **Grew the team from 6 to 14 engineers** across three verticals, with 80% retention

### SDE - 3 | yellow.ai

JAN 2023 - DEC 2023, TORONTO, CANADA

• **Increased yellow.ai platform's uptime to 99.9%** by eliminating Single Points of Failure across the system through **Geographical Database replication**, Database Proxies, and **geo-steered load balancing** 

#### SDE - 2 | yellow.ai

JAN 2021 - DEC 2022, BANGALORE, INDIA

- Spearheaded the engineering efforts for building and maintaining WhatsApp Business **Kubernetes** infra
  - Collaborated with the WhatsApp/Meta team to run load tests with various Kubernetes workload configurations and understand the optimal resource configuration
  - Revamped services to provision new workloads in Kubernetes with this configuration, resulting in a 400% increase in messaging throughput and reduced the cost of the infrastructure by 88% per month
  - Setup **Prometheus** dashboard and introduced alerts on system metrics
- Implemented a blue-green data migration strategy for chatbots, resulting in zero downtime and a 170% increase in migration success rate
- Introduced **artifact management** with **Nexus**, converted an internal monolith into smaller libraries
  - o Integrated this with a **Jenkins** pipeline to do automatic **semantic versioning**

#### **SDE - 1** | yellow.ai

MAR 2018 - DEC 2020, BANGALORE, INDIA

- Introduced admin panel for managing the yellow.ai platform using React, Ant Design, and Typescript
- Implemented OAuth 2.0 with OpenID Connect (OIDC), Proof Key for Code Exchange (PKCE) which allowed clients to access the yellow.ai platform via any OAuth 2.0 provider

### BI Developer | Visual BI Solutions (an Atos Company) MAY 2017 - MAR 2018, CHENNAI, INDIA

• Integrated Business Intelligence tools for the product **BI Hub** such as Microsoft Power BI, SAP Business Objects, SQL Server Reporting Services, and TIBCO Spotfire using **Python**, **MySQL**, **and Java** 

#### Education

#### **Computer Science and Engineering | Anna University**

AUG 2013 - MAY 2017, CHENNAI, INDIA

Implemented Capstone Project on "BLE Tracking System" using Arduino, NRL24L01, Android, and Firebase