



Gagandeep Singh

Staff Software Engineer

Senior Engineer with 8+ years of industry experience specialising in end-to-end feature delivery, people management, sprint management, reducing cloud bills, and hiring (freshers, senior engineers, leads, and Devops). Possessing extensive expertise in backend development and AWS cloud services, I excel in building, improving, and scaling applications alongside the necessary infrastructure. My adeptness extends to both individual contribution and collaborative teamwork. In my current role, I am engaged in 40% individual contribution and 60% team management, overseeing a team of 6 developers and 1 QA specialist.

Contact

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- Delhi, India

Education

- B.Tech (CSE)**
2011-2015
GGSIU (GTBIT, New Delhi)
- AISSC, CBSE**
2010-2011
GHPS Vasant Vihar, New Delhi
- SSC, CBSE**
2008-2009
GHPS Vasant Vihar, New Delhi

Skills

Technical Skills

- Primary Backend** - Ruby on Rails
- Languages** - Ruby, Java
- Databases** - Postgres, Redis, Kafka
- Cloud** - AWS
- Frontend** - HTML, CSS, jQuery
- Operating System** - Ubuntu, Mac
- Containerization** - Docker, docker-compose, k8s
- Proxy Servers** - Nginx
- Monitoring tools** - Prometheus
- APM tools** - Datadog, NewRelic
- Git backends** - Github, Bitbucket

Other Skills

- Strong communication skills
- Hiring, onboarding, mentoring people
- Critical thinking & attention to detail
- Getting things done

Spoken Languages

- English - Proficient
- Hindi - Native
- Punjabi - Native

Experience

Staff Software Engineer

LocoNav India Pvt. Ltd.

Dec 2020 - Present

Gurugram, Haryana, India (Remote)

FASTag product

- Started working from scratch, collaborating with external team and launched in record time. Worked as a developer, built a team, and later delegated completely.
- Scaled from 0 to 2.6Cr of daily transaction volume (~2% of India's total volume).
- Optimized bandwidth of internal teams by more than 40% by building bulk actions, customized internal products and workflows.
- Partitioned the transactions table as system grew and transitioned to a microservice, improving speed of five slowest endpoints by more than 75%.
- Owned complete data transition during product acquisition.

Git branching and release automation

- Defined release strategy for 6 years old monolith, worked upon by 40+ developers.
- Initial strategy involved about an hour of daily commitment of a Sr. Engineer (rotated weekly). Automated this end to end, to eliminate this need.

Code and infra refactoring for background job cluster (sidekiq)

- Refactored from 70+ queues to 5 queues for background processing, documenting best practices for all developers.
- Was also able to eliminate servers in this process, saving 25% infrastructure cost.

Optimizing workflows for internal business teams

- Brainstormed and optimized processes for ground operation team and built custom workflows & automations to optimize their bandwidth by more than 30%.
- Currently working with dispatch & procurement teams to optimize their bandwidth.

System upgrades and cloud cost optimizations

- Single handedly performed one major framework upgrade and managed changes for two minor upgrades with the team for the monolith app.
- Performed two major and one minor database upgrades using multiple strategies.
- Managed cost reduction activity in late 2022 with Devops team saving close to 25%.

Member of Technical Staff

LocoNav India Pvt. Ltd.

Feb 2018 - Dec 2020

Gurugram, Haryana, India (Hybrid)

Refactoring core system entities

- Untangled how vehicles and users are accessed by 200+ reports and APIs.
- Improved query performance and added caching, reducing database load by 10%.

Mobile APIs, Push notifications, White labeling

- Built entire backend API for mobile apps that served ~ 80% of total website traffic.
- Built multilingual, extensible backend handling ~ 10m notifications daily. This also included support for multiple Firebase projects (for handling white labeled apps).
- Implemented backend for white labeling apps for 100+ partners, released monthly.

Communication, Marketing, Subscription Renewals

- Implemented features like in-app notifications and blocking banners, etc. to drive multiple marketing needs and announcements.
- Implemented first version of subscription renewal using blocking banners, collecting over Rs. 3.7L during COVID. This is currently handling a volume of ~ 3.2Cr annually.

Hobbies

- Music
- Writing blogs
- Reading books, blogs

- **Improved stability of Email functionality**
 - Slowly moved ~ 150 kinds of emails to Amazon SES from a less reliable provider.
 - Sent ~ 2 million emails daily and handled complaint lists using SES/SQS based setup.
- **Handled Devops work**
 - Completed Jenkins setup and moved all deployments to it slowly.
 - Moved from single machine to multiple machines for the core monolith service as user base grew. Helped other teams to launch machines as per need.
 - Created VPCs, subnets, configured security groups, simplified infra by creating private hosted zones, wrote some Lambda based automations.
 - Created plan for EC2 reservations based on current usage and future projection.

○ **Senior Software Developer**

JTG E-Business Software Pvt. Ltd

Oct 2016 - Feb 2018

Gurugram, Haryana, India

- **Uptime Cloud Monitor (formerly CopperEgg)**
 - Worked in a team of 4 and supervised 2 developers.
 - Integrated monitoring of Azure cloud products.
 - Planned and moved infrastructure from Classic EC2 to VPC in a phased manner.

○ **Software Developer**

JTG E-Business Software Pvt. Ltd

Jun 2015 - Oct 2016

Gurugram, Haryana, India

- **Uptime Cloud Monitor (formerly CopperEgg)**
 - Worked on various small features and bugfixes primarily in Rails and Backbone JS.
 - Improved the box collector tool (written in C) to ignore docker network interfaces.
 - Documented various critical subsystems and scaled down multiple systems.
 - Hardened Redis security after a compromise activity on AWS and Linode clouds.