



# Ankit Singh

## Lead Engineer

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<https://theankitsingh.in/> 🌐

Bengaluru, India 📍

Full-stack developer skilled with Ruby on Rails, Python, MySQL, JavaScript and React. [Certified AWS Solution Architect](#) with expertise in designing secure, scalable solutions. Experience at delivering high-quality end-to-end solutions on time.

## PROFESSIONAL EXPERIENCE

Lead Engineer

[LotusPay\(acquired by Juspay\)](#)

📅 Feb 2020 – Till Now

**Project Name:** Developing India's best NACH System.

Led the technical department and establishing an agile framework. I engineered the cutting-edge tech stack to align it seamlessly with the organization's strategic objectives and achieving the result with improved overall efficiency.

### Front End Development

- Designed payment application dashboard using RoR, enabling users to perform CRUD operations on their payments.
- Implemented **payment popups** to meticulously track payments attributed to miscellaneous factors, resulting in **90% reduction** in payment drop cases.
- Implemented HTTP protocols to execute **AJAX request** for **heavy queries**, **decreasing load time** from **7 to 1 sec**.

### Back End Development

- Developed robust and scalable **REST APIs** functions using Ruby on Rails and Redis and EC2 which led to a **90% improvement** in overall system payment interactions. This freed up core servers for more **critical tasks**.
- Initiated customized error messages for each unused Rest API request, **reduced customer confusion** and **increased overall satisfaction** by 25%.
- Redesigned **A/B testing** to figure out which web page leads to max conversions and understanding **user** preferences and **behaviour**, leading to a **30% increase** in conversion rates.
- Streamlined real-time monitoring and reporting tools to track system performance, giving in a **95% reduction** in **downtime incidents** and maintaining an average **resolution time** of **less than 5 minutes**.

### Image Processing API's on EC2 Instance

- Collaborated with cross-functional teams to analyse user requirements, design technical specifications, and develop a **scalable image processing architecture** that resulted in a reduction of image processing time to **3 sec** and boosted the **productivity** of the operations team by **150%**.

### Payment's Importing System

- Created and coded a new technique to **import** all auto payment **data** from the **bank** to the native system, resulting in a **15x decrease** in server **processing time** (MySQL).

### Cloud/DevOps

- Designed and implemented a high-performance MySQL schema for the complete application stack, optimizing data storage, retrieval, and query execution. This robust schema foundation contributed significantly to the overall performance and value proposition of the product in the market.
- Identified **performance bottlenecks** problem through profiling tools and implemented **caching** strategies, reducing server load by 50%, **improving** scalability and **saving** \$10k/yr on hosting expenses.
- Analysed and utilized **AWS Route53** for **blue-green** deployment, **reducing downtime** by 30% during peak hours.
- Designed Linux services to prevent faulty deployments to production and manage ongoing background jobs using **Redis** and **sidekiq** refining the operations by 35%.
- Implemented and expanded a secure **three-stage pipeline** mechanism utilizing **AWS Workspaces**, thereby ensuring that confidential code repositories were never directly accessed, **resulting** in a 60% **reduction** in the risk of data leakage.

## SKILLS

- \* Ruby on Rails, Python, C++, JavaScript
- \* React, Flask, Shell Scripting
- \* MySQL, DynamoDB, PostgreSQL
- \* Redis, Sidekiq, Git, GitHub
- \* Amazon Web Services, Docker

## TECH LEADERSHIP HIGHLIGHT

- Published manuscript on [Object Detection and Segmentation](#) in International Scientific Research.
- Cultivated **public speaking skills** over the course of a four-year by giving tech seminar, speaking at meetups, and college debates.

## PROJECTS

- [Neighborhood Map](#) - **KnockoutJS** and **Google Map API**
  - This Application helps to find the best places to visit in city using Google Maps API's and list gets updated twice a year.
- [Blood Bank Web Project](#) - **Python, Flask, Google OAuth**
  - This Application maintains records, does a quick analysis of the blood category, and sends blood to the needy in under 1 second.
- Heat mapping over an Image - **Resnet50**.

## EDUCATION

### GRADUATION

**B TECH**, Computer Science (June 2016 – June 2020)  
Cambridge Institute of Technology – Bengaluru