

# Ankit Singh

Senior Software Engineer • LotusPay

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Bengaluru, India 📍

With a strong foundation in **full-stack development**, I am a [Certified AWS Solution Architect](#) with a deep understanding of **cloud-based solutions**. With expertise in product design, computer vision and passion for open-source.

## PROFESSIONAL EXPERIENCE

Senior Software Developer Engineer

LotusPay



Feb 2020 – Till Now

As the only engineer of the technical department, I curated and implemented a comprehensive tech stack, ensuring its alignment with business goals and overseeing the overall functioning of the department.

### Image Processing Standalone EC2 Instance

- Collaborated with cross-functional teams to analyze 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 improved the **productivity** of the operations team by **150%**.
- Implemented real-time monitoring and reporting tools to track system performance, resulting in a **90% reduction** in **downtime incidents** and an **average resolution time of less than 5 minutes**.

### Payment's Importing System

- Developed a new technique for **importing** all the auto payment data from the bank to the native system leading to **decreasing** in server process time by **15x (MySQL)**.

### Platform Upgrade

- Single-handedly managed the successful **upgrade** and deployment of the **new production environments** on **AWS Elastic Beanstalk** with zero cost overruns and **zero production downtime 3 times in a year**.
- Implemented **AWS Route53** for **blue green deployment** to avoid downtime during peak hours.
- Managed the requirements gathering processes to support the development of new and enhanced features and functions.
- Identified performance bottlenecks through profiling tools and implemented caching strategies, reducing server load by 50%, improving scalability and saving \$10k/yr on hosting costs.
- Developed customized error messages for each unused REST API request, reducing customer confusion and increasing overall satisfaction by 25%.
- Decreasing the **page load time** from 7s to 1s by implementing **AJAX** call for heavy queries.
- Implemented and deployed **VPN access** to organizations **VPC** using **AWS VPN**.
- Developed a secure three-stage pipeline mechanism using **AWS workspaces** to ensure that confidential code repositories were never **directly accessed**, reducing the risk of **data leakage by 60%**.

### AWS Linux Service Scripts

- Designed Linux services to avoid fault deployment to production and robustly handle the ongoing background jobs using **Redis** and **sidekiq** with **REST APIs**.
- Developed **serverless functions** to **automate** periodic job processes, **resulting in a 90% reduction** in **human intervention** and **freeing up core servers** for more **critical tasks** using **AWS Lambda**.
- Ran **A/B testing** to figure out which web page leads to max conversions and also developed scripts to perform testing to get hold of critical errors at an earliest.

## SKILLS

- Ruby on Rails, Python, C++, JavaScript
- Flask, Shell Scripting
- MySQL, DynamoDB, PostgreSQL
- Redis, Sidekiq, Git, GitHub
- Amazon Web Services
- REST API's
- Dockers
- Data Structure and Algorithms

## ACHIEVEMENTS / Recognition

- Successfully published a **manuscript** on **Object Detection and Segmentation**.
- Best **Server-Side project** in the country by **Udacity**.
- Very active and profound in college:
  - Won prizes intercollege hackathons.
  - Well-honed public speaking skills, developed 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.
- **Blood Bank Web Project** - **Python, Flask, Google OAuth**
  - This Application will help you to enter details and maintain record and do quick analysis of the blood category and send blood the need person quickly.
- Google Assistant App - **Google DialogFlow**
  - Developed three apps in google assistant using DialogFlow **chat bot for introduction, learning python and sports quiz**.
- Heat mapping over an Image - **Resnet50**
- **Google Keep Replica** – **NodeJS, HTML and CSS**
- **Drum Machine** – **ReactJS**
  - Developed a music system where you can make different type of beats for your upcoming music using 9 keys.