

# Akash Kulthe

Software Engineer | IIT Bombay

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## Work Experience

### • Pine Labs | Software Engineer

(July'23 - July'24)

#### Payment Gateway Integration

- Integrated **Gr4vy Orchestrator** with payment checkout to streamline payments, contributing to **20%** increase in revenue
- Optimized performance using **Redis** caching and reducing latency by **30%** by avoiding repeated calls to the database
- Created error handling, logging mechanisms using **Spring AOP**, reducing debugging time by **50%** and minimizing downtime
- Implemented Gr4vy SDK for transaction creation and **DQS** (Delay Queue Service) **SDK** for real-time transaction status
- Developed various test cases including **TDD (unit, integration) and BDD**, significantly increasing code coverage to **95%**

#### Credit+

- Implemented **Keycloak**, an open-source **IAM** solution to manage user **authentication** across portals, for **1000+** users
- Configured realms for centralized identity management, enhancing access control and reducing onboarding time by **20%**
- Integrated **Privacy-IDEA** with Keycloak to implement custom **multi-factor authentication (MFA)** flows for login and registration, reducing user authentication platform costs by approximately **30%**
- Led the **RSA integration** by aligning technical implementation with business requirements and coordinating effectively with the RSA team, cutting development time by **15** days and boosting team efficiency by **25%**
- Authored **50+ unit test cases**, ensuring coverage of every line of code and elevating code coverage from **80%** to **95%**
- Developed **Dockerfile** configurations for **10+** services, boosting deployment efficiency and portability across environments

#### API Gateway

- Designed **custom transformers** for API request and response handling, enabling seamless integration and communication across **API Gateway** components
- Engineered routes for **100+** APIs in the API Gateway, enhancing system scalability, integration efficiency
- Contributed to **Agile** practices by participating in sprint planning, daily stand-ups, and retrospectives, improving sprint delivery success rate by **30%** over 6 months

**Exposure : Java, SpringBoot, SQL, Docker, Postman, Redis, Unit Testing, REST APIs, Microservices**

## Projects

### • Signal Times Optimisation — Course Project

(Feb'22- May'22)

Guide: Prof. Avinash Bhardwaj and M. Kulkarni, Mechanical Engineering, IIT Bombay

- Formulated road Network considering the constraints to reduce the **average congestion rates** on the roads
- Created a **piece-wise linear delay function** for each link, taking into consideration several cases of traffic flow
- Used **AMPL** to get the solution of traffic network and **Any-Logic** to validate reliability and robustness of the solution

### • Stock Market Chart Analysis using Python — Self Project

(May'22- June'22)

- Generated a **candlestick chart** and plotted closing price versus time using **time series data** from **y-Finance**
- Depicted a **SMA indicator** to generate Buy/Sell Signal with annual average returns of **35%** on **nifty50** stocks
- Produced **volatility indicator** to measure how far security deviates away from its own mean price, higher and lower

## Technical Skills

- **Programming Languages:** C++, Java, Python, HTML, CSS, JavaScript
- **Technical Skills:** Data Structure and Algorithms, Object-Oriented Programming, Machine Learning, SQL
- **Frameworks and Technologies:** Git, IntelliJ, SpringBoot, Postman, Docker, MS-SQL, MongoDB, Visual Studio, MS-Office

## Leadership Experience

### • DSMP Mentor — Dakshana Foundation, India

(Jul'21- May'22)

- Aimed to facilitate transition of 1st-year students to college environment who were part of the Dakshana Foundation
- Interacted with mentees to help them cope with their **academic, personal and extra-curricular endeavours**

### • Coordinator — Entrepreneurship Cell, IIT Bombay

(Sep'20- Mar'21)

- Piloted RnD Conclave in E-summit, commercializing **10+** research projects of IIT Bombay; a **100%** YoY increase
- Managed the Event Networking Arena which had more than **80** start-ups and over **150 investors** during E-Summit

## Academic Achievements & Extracurricular Activities

B.Tech

Indian Institute of Technology, Bombay

(Jul'19- May'23)

- Secured **99.20** percentile in **JEE-Advanced** and **99.80** percentile in **JEE-Main** ( 1M+ candidates ) (2019)
- Secured first rank in Kho-Kho at **Aavhan sports event 2022 at IIT Bombay** (2022)
- Visited over **10** government schools to educate more than **250+** students about IIT and the Dakshana Foundation (2022)