

# Mahesh Gouni

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in GOUNI MAHESH    🌐 mahesh-gouni

## SUMMARY

Java Full Stack Developer with a strong background in Designing and transforming ideas into cutting-edge Web Applications. Implemented the Software Development Life Cycle (SDLC) , ensuring efficient project execution from planning through to Deployment and Maintenance. Skilled in Project Planning, collaborating with cross-functional teams to define requirements, set milestones, and ensure timely delivery of impactful software solutions.

## ROLES AND RESPONSIBILITIES

- Implemented **Git** and **GitHub** for version control, including repository initialization, staging, remote configuration, resolving merge conflicts, and applying commits with cherry-pick, merge and rebase.
- Ensured code quality by creating **PRs**, conducting reviews with at least two authenticators, handling emergency fixes through a **heartbeat branch**, and creating feature branches from develop for new functionality.
- Implemented Apache **Maven** for project build automation, dependency and lifecycle management, and efficiently configured the **pom.xml** to manage dependencies, plugins, and project settings.
- Leveraged **OOP's** to design reusable code by defining contracts through interfaces and abstract classes .
- Applied **SOLID** and **DRY** principles to build scalable product demonstrations.Ensured Single Responsibility with POJOs, used abstractions for Dependency Inversion, and designed services for Open-Closed.
- Implemented **Exception** handling with try-catch blocks and custom exceptions such as EmailAlreadyExistsException to manage business logic errors and ensure smooth application flow.
- Applied **Collections** like List for data storage and Map for fast lookups to enhance **CRUD** operations.
- Replaced traditional loops with **Stream API** for optimized performance and used Enums to manage static status codes, ensuring utilized Iterator and **ListIterator** for clean code and improved performance.
- Used **Swagger** API tools for comprehensive Rest API testing and defined the API contract in YAML,seamless integration with external systems using a bottom-up approach, **Postman** for validate **RESTful API**.
- Designed and managed scalable, efficient RDBMS solutions with **MySQL**, ensuring data integrity and security. Optimized development using MySQL Workbench for schema design, modeling, and query execution.
- .Optimized MySQL query performance through **pagination** and aggregation functions, efficiently generating summarized reports and insights from large datasets.
- Implemented **ACID**-compliant transactions in MySQL, utilizing views and joins to streamline data retrieval and ensure consistency, integrity, and reliability across complex database operations
- Implemented Dependency Injection (**DI**) and Inversion of Control (**IoC**) using the **Spring Framework** to manage object creation with built-in annotations and applied design patterns such as Singleton and Builder.
- Leveraged Spring annotations such as @Conditional, @Profile, and @ConditionalOnProperty for dynamic, environment-driven **Bean** creation and feature toggling, while using @ComponentScan and @Configuration to replace XML configuration, simplifying Spring bean discovery and enhancing application maintainability.
- Developed **Spring Boot** applications using the **Spring MVC** architecture, implementing @RestController with request mappings and @RequestBody to efficiently handle **HTTP requests** and send **JSON** responses.
- Utilized **Spring Data JPA** with **Hibernate** for database access, designing entity classes with relationships to model relational tables in Spring Boot, and used **ModelMapper** to convert between entities and DTOs.
- Implemented **validation** , created custom validators to ensure fromDate is before toDate, and managed errors through **Global Exception Handler** @Service for Business logic in Spring Boot.
- Implemented FetchType , used @BatchSize, and applied **FETCH** in queries to resolve **N+1 problem** in Spring Boot, optimizing query performance by batching database fetches and minimizing unnecessary calls.
- Deployed MySQL and PostgreSQL databases in **Docker** containers . Set up and managed **Jenkins** and **SonarQube** within Docker environments to streamline continuous integration and enhance **Quality Assurance**.
- Created **Webhooks** and used **Ngrok** along with AlpineSocket to expose Docker containers to the outside

world, enabling seamless integration and external access for Development and Testing purposes .

- Implemented **Kong API Gateway** within a Docker container, configuring a dedicated network and integrating it with a PostgreSQL database to persist service configurations and routing details. Deployed a Spring Boot application on Render, facilitating a **Microservices** architecture that ensures seamless inter-service communication, optimized API management, and scalable service orchestration.

## PROJECTS

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### Object detection using yolo algorithm

- Implemented YOLO object detection algorithm to identify and classify objects in real-time, achieving 95 accuracy on benchmark datasets and enhancing automated surveillance capabilities.
- Designed a user-friendly interface using Bootstrap, increasing user engagement by 500 users and integrating a detection system that reduced processing time by 3 seconds per transaction, improving overall system performance.

### Payment fraud detection using machine learning

- Developed a credit card fraud detection system utilizing Support Vector Machines (SVM) and data mining techniques, increasing the accuracy of identifying fraudulent transactions by processing over 10,000 transactions per minute

## EDUCATION

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**AAR MAHAVEER ENGINEERING COLLEGE, JNTUH**

*Dec 2020 – Jul 2024*

**Bachelor of Technology**

*Computer Science AND Engineering*

**LITTLE FLOWER JUNIOR COLLEGE, TSBIE**

*Jun 2018 – Feb 2020*

**Intermediate**

*Mathematics , Physics , Chemistry*

**ZPHS NACHEPALLY**

*Mar 2018*

**Seconadary School of Education**

## DECLARATION

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I hereby declare that the details above are correct and true to the best of my knowledge.

*MAHESH GOUNI*