# SAGAR DESAI

# SOFTWARE DEVELOPER

## CONTACT

- +91 6356151091
- desaisagar8090@gmzil.com
- Ahmedabad , Gujarat , India
- https://github.com/SagarDesai10
- https://leetcode.com/u/desai\_sagar

# **SKILLS**

- Java, Jsp, Servlet
- Spring Boot, Spring mvc
- Html, Css, Js
- Postgresql, Mysql
- Data Structure, DBMS
- Git, Docker

# LANGUAGES

• English, Hindi, Gujarati

## **ACHIEVEMENT**

- AMCAT( Aspiring Minds Computer Adaptive Test) Certificate
- Participated in 35+ CodeChef Contests and solved 150+ problems(Highest rating:1356)
- Solved 200+ problems on leetcode

## **EDUCATION**

**HSC** 

2020

OXFORD SCHOOL OF SCIENCE, **AMRELI** 

Percentage - 82

SSC 2018

SMT. SHANTABEN HARIBHAI GAJERA SCHOOL, AMRELI

Percentage - 88



# **PROFILE**

Self - motivated and hardworking graduate seeking an opportunity to work in challenging environment to prove my skills and utilize my knowledge for the growth of the organization.



# WORK EXPERIENCE

Grovetech

2024 - PRESENT

JUNIOR SOFTWARE DEVELOPER

- Work On Spring Security With Authentication And Authorization
- · Work On Mapstruct, Hibernate, multi module
- · Work On Swagger, Entity Auditing
- Work On AOP, Criteria api, specification, microservices
- Work On Postgresql
- Work On DistributedTracing With Micrometer & Opentelemetry & jaeger
- Work On Resilience4j Circuit Breaker And Retry With Microservice

# FINLOGIC TECHNOLOGY

DEC 2023 - JUN-2024

FULL STACK JAVA DEVELOPER INTERN

- Creat Expense Manager Using JSP, Servlet
- Creat Employee Detail Using Spring With MultiAction Controller and Annotation Work on Live Project MDMS(Marketing and Distribution Management System)
- Work on Courier Agency Rate Master module of MDMS
- Work on Distribute Queries module of Customer Care
- Work on Update Mass Query module of Customer Care Technologies Used During Internship Are

Html, Css, Java, Mysql, JavaScript, JSP, Servlet, Spring



## **EDUCATION**

**B.E/B.TECH** 

2020 - 2024

G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY, ANAND

B.E / B.Tech in Computer Engineering CGPA - 8.69

# KEY PROJECTS & PROBLEM SOLVING

## Fault Tolerance & High Availability in Microservices

#### Challenge:

In a distributed microservices architecture, frequent downstream service failures led to cascading failures, degrading system availability and user experience.

## Solution:

- Designed and implemented Resilience4j Circuit Breaker to prevent repeated calls to failing services, reducing system-wide failures.
- Applied Retry with exponential backoff to intelligently handle transient failures without overwhelming the system.

## Impact:

- Significantly improved system fault tolerance and reduced mean time to recovery (MTTR).
- Enhanced system stability and improved response times under degraded conditions.

GitHub: https://github.com/SagarDesai10/spring-cloud-gateway.git

# **Enterprise-Grade API Security with Spring Security**

## Challenge:

Unauthorized access and security vulnerabilities posed risks to sensitive endpoints and critical business logic.

#### Solution:

- Architected a JWT-based authentication system to enable stateless, secure API access.
- Implemented fine-grained authorization controls using RBAC, and custom security filters.

## Impact:

- Eliminated unauthorized access risks, ensuring compliance with industry security standards.
- Reduced attack surface while maintaining a seamless user experience.

GitHub: https://github.com/SagarDesai10/spring-boot-scalable-backend.git

## **Audit & Compliance with Hibernate Envers**

#### Challenge:

Regulatory compliance and business requirements necessitated full tracking of database entity changes over time.

#### Solution:

- Integrated Hibernate Envers to enable automatic auditing of CRUD operations.
- Designed a versioning strategy to maintain historical data integrity.
- Built an audit dashboard with structured logs and queryable history for forensic analysis.

#### Impact:

Provided traceability for data changes, enabling faster debugging and compliance reporting.

GitHub: https://github.com/SagarDesai10/spring-boot-scalable-backend.git

## **High-Performance Object Mapping with MapStruct**

## Challenge:

Manual DTO-to-Entity conversion caused performance bottlenecks and unnecessary boilerplate code.

#### Solution:

- Leveraged MapStruct to enable high-performance, annotation-driven object mapping.
- Optimized mapping strategies with custom logic and lifecycle hooks to handle complex transformations.
- Integrated SqlResultsetMapping, Lombok and MapStruct together, reducing verbosity while maintaining maintainability.

## Impact:

- Reduced mapping execution time by 40%, improving API response times.
- Simplified codebase, leading to better maintainability and reduced technical debt.

GitHub: https://github.com/SagarDesai10/spring-boot-scalable-backend.git

## Dynamic Query Optimization Using Criteria API & Specification

## Challenge:

Predefined queries were inflexible and led to inefficient database access patterns, impacting performance.

#### Solution:

- Developed a modular and dynamic query engine using Criteria API & Specification for complex filtering.
- Applied Indexing & Query Optimization techniques to ensure efficient execution of dynamic queries.
- Leveraged pagination and caching mechanisms to minimize database load.

## Impact:

- Reduced query execution time by 35%, improving API response latency.
- Enabled real-time analytics and reporting with on-demand, flexible filtering.

GitHub: https://github.com/SagarDesai10/spring-boot-scalable-backend.git

## **Distributed Tracing for Microservices Observability**

## Challenge:

Tracing transactions across multiple microservices was difficult, making debugging and performance monitoring highly challenging.

#### **Solution:**

- Implemented OpenTelemetry with Jaeger to enable distributed request tracking across microservices.
- Integrated Micrometer & Zipkin to collect system-wide telemetry data, enabling real-time performance monitoring.
- Established trace correlation IDs to provide end-to-end request visibility.

#### Impact:

- Reduced incident resolution time by 60%, significantly improving system observability.
- Enabled proactive performance tuning with real-time telemetry insights.

GitHub: https://github.com/SagarDesai10/openTelemetry-Jaeger.git

GitHub: https://github.com/SagarDesai10/micrometer-zipkin.git