

MALAK ESSAM

Backend Developer

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EXPERIENCE

Junior Backend Developer

Softplan

Mar 2025 – Ongoing remote

- Developed RESTful APIs using Spring Boot to support core business features, ensuring data integrity and optimal response times
- Designed relational database schemas and wrote optimized SQL queries using PostgreSQL and Spring Data JPA, improving query performance by implementing proper indexing and query optimization techniques
- Implemented secure authentication and authorization mechanisms using Spring Security and JWT tokens, protecting sensitive API endpoints and managing role-based access control for different user types
- Collaborated with cross-functional teams in Agile sprints to deliver features on schedule, participated in code reviews, and contributed to technical documentation and API specifications

PROJECTS

Real-Time Chat Application with Friend Management System

Personal Project

Backend: Spring Boot, Spring Security, Spring Data JPA, WebSocket (STOMP/SockJS), PostgreSQL, JWT, RabbitMQ

Frontend: Next.js 16, Tailwind CSS

Backend | Frontend

- Architected RESTful API with 15+ endpoints for user management, authentication, and chat operations, ensuring scalable and maintainable code structure
- Implemented real-time bidirectional messaging system using WebSocket (STOMP/SockJS), achieving sub-100ms message latency with support for typing indicators and online presence tracking
- Integrated RabbitMQ message broker for asynchronous notification delivery and offline message queuing, decoupling services and improving system scalability
- Developed comprehensive friend management system with custom Spring Data JPA queries for user search, friend requests, and connection handling with optimized database indexing
- Secured application with Spring Security and JWT-based stateless authentication, implementing token refresh mechanism, role-based authorization, and BCrypt password encryption

EDUCATION

B.Sc. in computer science

Cairo University

Sept 2018 – June 2022

SKILLS

Backend

Java Spring Boot Spring Data JPA
Hibernate Spring MVC REST APIs
PostgreSQL MySQL SQL JWT
Spring Security HTTP WebSocket
RabbitMQ

Frontend

React Next.js Tailwind CSS

Tools & Testing

Git Docker Maven Postman
JUnit Mockito

Data Management

Bean Validation Exception Handling
Transaction Management JSON

Core Concepts

OOP Design Patterns
SOLID Principles API Design
Microservices

LANGUAGES

Arabic



English

