

Emad Hussien

Backend Engineer More than a year of hands-on software development experience focusing on backend technologies and full-stack applications. Built and delivered various projects, including side projects, freelance work, and internships. I enjoy turning ideas into reality.

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[GitHub Link](#)

WORK EXPERIENCE

Klavr

Egypt, Cairo

Backend Intern

AUG 2024 - OCT 2024

Klavr is a fintech Egyptian company subsidiary of Orascom Financial Holding (OFH).

- Designed and implemented MongoDB aggregation pipelines to optimize filtering and pagination, reducing backend workload.
- Reduced API complexity and traffic by creating a flexible PATCH API for batch updates.
- Integrated Firebase Storage for file uploads with Multer and validation middleware.
- Implemented real-time backend features for task updates and user activity tracking using Socket. IO.

Technologies: Node.js, TypeScript, Express, MongoDB, Firebase, Socket. IO.

EDUCATION

Ain Shams University, (Bachelor of Computer and Information Sciences).

Egypt, Cairo

June 2023

PROJECTS

[Library Management System](#) (Nov 2024 - Present). Backend Engineer.

- Developed RESTful APIs to manage books, patrons, and borrowing records with JWT-based authentication and transaction management.
- Designed database schemas to handle borrowing limits and track available copies, ensuring robust error handling.
- Integrated AOP for cross-cutting concerns and implemented caching to enhance performance.

Technologies: Java, Spring Boot, JPA, Hibernate, RESTful APIs, Spring Security, AOP, Spring Cache, H2, Mockito.

[Workout Tracker](#) (SEP 2024 - OCT 2024). Backend Engineer.

- Designed relational database schemas for user authentication, exercises, and workout plans to ensure consistency and scalability.
- Developed seeding logic for exercise data categorized by type and muscle group.
- Secured APIs using JWT authentication, enabling user-specific operations and generating progress reports.

Technologies: Java, Spring Boot, MySQL, JPA, Hibernate, RESTful APIs, JWT.

TECHNOLOGIES

Stack

Java, Spring Boot, H2 Database, JPA, REST API, MySQL, Mockito, Spring Security, Spring Cache, AOP, SpringBootTest, Hibernate, Maven, Keycloak, object-oriented design.

Other

NodeJS, ExpressJS, TypeScript, ReactJS, MongoDB, Firebase, Redux, Github, Tailwind, Material Ui, Socket IO

CERTIFICATES

[CS50: Introduction to Computer Science \(2020\)](#)

Solved the 9 problem sets and developed a web application final project.

[Responsive Web Design \(2022\)](#)

Built 5 frontend projects.

LANGUAGES

Arabic native

English C1, fluent