Mohammed Shousha

Software Engineer

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Mohammed-Shousha

Portfolio

Experience

Full-Stack Developer

inBots - Part-time 10/2024 - Present

- Refactored existing codebases to improve scalability, performance, and maintainability across React, React Native, and Node.js/Express projects, reducing debugging time by 30%.
- Supported cross-functional teams, including mobile, backend, and frontend, by implementing new features and resolving technical challenges to meet project requirements.

Air Defense Soldier

Egyptian Armed Forces - Part-time

04/2024 - Present

- Enhanced a physical testing machine for soldiers by integrating a PS4 controller with an ESP32, creating a React and TypeScript web interface to calculate scores and save data to Excel, resolving Bluetooth issues with a Python and Express backend, and reducing manual work by 70%.
- Invested free time in self-directed learning through technical books and coding tutorials to master React Native, TypeScript, and system design principles, ensuring alignment with industry trends.

Mobile Developer

inBots - Full-time 01/2024 - 04/2024

- Designed and built cross-platform mobile applications using React Native and Expo for real-estate and smart community clients.
- Collaborated with business developers, UI/UX designers, and backend teams to translate requirements into functional app features.
- Contributed to React frontend and Node.js/Express backend development to support project goals alongside core mobile tasks.
- Maintained and enhanced a Flutter-based mobile application, implementing new features and optimizing performance.

Software Engineer Intern

alx africa - Internship

07/2023 - 10/2024

- Specialized in frontend development, mastering React, Redux, and TypeScript to build scalable Uls.
- Built a full-stack Airbnb clone (Flask/MySQL) and a UNIX command interpreter in C, enhancing backend and systems programming skills.
- Delivered two portfolio projects: Restaurant Management System (React, React-Query, Supabase) and Trip Tracker (React, Leaflet, React-Router-Dom) with real-time features.

Technical Skills

Languages: JavaScript, TypeScript, Python, Dart

Frontend: React, Next.js, Tailwind CSS, styled-components

Mobile: React Native, Flutter, Expo

Backend: Node.js, Express.js, NestJS, FastAPI, GraphQL

Databases: MongoDB, PostgreSQL

Tools: Git, GitHub, Postman, Figma, Notion

Mechatronics Engineering

Mansoura University

09/2018 - 07/2023

- GPA: 3.97 (Top 1% of the class).
- Led projects including a waste sorting line (Arduino programming), a smart shopping cart (computer vision and website development), and a sumo robot (sensor integration and code writing).
- Participated in a mobile app competition, using React Native to secure 4th place.
- Managed the entire software of the graduation project, utilizing various technologies including Raspberry Pi, Flutter, GraphQL, and FastAPI.

Projects

Online Store <u>Frontend</u> ☑ <u>Backend</u> ☑

- Created a full-stack online store website for a seamless shopping experience.
- Implemented MERN stack (MongoDB, Express, React, and Node.js) for robust development.
- Crafted a user-friendly, responsive interface with Arabic language support.

Recipes App <u>Frontend</u> ♂ <u>Backend</u> ♂

- Developed a user-friendly recipes app, providing a wide range of delicious recipes for user selection.
- Created the app utilizing React Native (Expo), Express, GraphQL, and PostgreSQL.
- Implemented features to add custom recipes with images and enabled advanced recipe search by ingredients, diet, calories, and time.

SAP (Smart Automated Pharmacy) [Graduation Project]

Project Repo ☑

- Developed a user-friendly Flutter application that enables patients, doctors, and administrators to interact with the system effortlessly.
- Created an Apollo GraphQL server to power the SAP Mobile App, providing functionalities such as user management, medicine management, prescription management, and secure payment processing.
- Built a tablet application using Flutter that allows users to seamlessly interact with a machine controlled by a Raspberry Pi, enabling them to receive prescriptions and order over-the-counter medicines.
- Implemented a FastAPI server to control the Smart Automated Pharmacy, offering a RESTful API for managing medicines, and prescriptions, and performing various SAP-related actions.

Smart Shopping Cart <u>Project Repo</u> ♂

- Developed a full-stack website as a user interface for a smart shopping cart utilizing computer vision.
- Created the project using React, FastAPI, and Docker for efficient implementation.
- Designed a simple and user-friendly UI with real-time updates through a WebSocket connection.

BrainUp App Project Repo ♂

- Developed BrainUp App, an educational app that simplifies teaching for educators and enhances student learning.
- Built a cross-platform mobile application using React Native and Expo, employing TypeScript and adhering to clean architecture principles for robust and maintainable code.
- Ensured app reliability by comprehensive testing using Jest and React Native Testing Library (RNTL), covering all aspects of the application to guarantee a seamless user experience.

Portfolio Project Repo ♂

- Incorporated responsive design, dark mode, smooth scrolling, and animated navigation.
- Developed using Next.js, TypeScript, Tailwind CSS, and Framer Motion for optimal performance.