Omar Kassem

Software Engineer

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Summary

Software engineer with three years of professional experience, passionate about learning and adapting to new technologies. Known for being a quick learner and versatile in various technological environments. Seeking opportunities to leverage technical expertise, leadership skills, and strong communication abilities to contribute to impactful and innovative projects.

Professional Experience

Software Engineer

Codescalers - October 2022 - Present

- Maintaining and developing new features for Threefold Solutions, the world's largest P2P infrastructure provider.
- Developing TypeScript packages for the TFGrid-SDK-TS monorepo, which includes the Threefold Dashboard and connects with TFChain and GridClient.
- Introduced a service monitor package that allows the Dashboard and GridClient to ping third-party services on separate stacks, switching to the next stack if one fails.
- Added a chain event listener in the TFC hain client — a generic function that accepts validation keys and returns target event information.
- Created a Vue-based Threefold Stats website to visualize real-time grid statistics, and provided a lightweight summary endpoint using Nginx and JavaScript to return JSON data without requiring backend services.
- Tech Stack: TypeScript, Vue, Vuetify, Node.js, Svelte, Lerna, Polkadot JS, Flutter, Docker, Kubernetes, GitHub Actions, GraphQL

Software Engineer Intern

Codescalers - July 2022 - September 2022

- Built Go projects integrated with Svelte front-end applications, including unit testing, Docker image creation, and Kubernetes container orchestration.
- Worked on CSHR, a comprehensive HR management system built using Django, DRF, Svelte, and REST API.

Freelance Mobile Developer - React Native

RXA Construct - October 2024 - February 2025

- Developed and maintained features for the RXA Construct mobile application using React Native, improving user experience and app performance. - Fixed critical bugs related to navigation, state management, and API integrations, increasing app stability. - Collaborated with the backend team to integrate RESTful APIs and ensure seamless data flow. - Ensured cross-platform compatibility and optimized performance across a wide range of Android and iOS devices. - Successfully released the updated app to both Google Play Store and Apple App Store. - Visit Project Website

Education

Faculty of Engineering - Mansoura University

Computer Engineering and Systems Department | Bachelor's Degree

July 2017 – August 2022

Cumulative Grade: 76% (Very Good)

Skills

- Languages: JavaScript, TypeScript, Go, Dart, C++, Python
- **Technologies:** Vue, Node.js, Flutter, React Native, Linux, AWS Services, CloudFormation, OOP, REST API, Git, SQL, NoSQL, HTML, CSS, Django, Terraform, Svelte, GitHub Actions, Docker, Kubernetes, Helm

Projects

RESP.js

A TCP server implementation that processes Redis-like commands using Node.js's net module and Mocha for unit testing.

TF-Umbrel/WordPress

Docker setup to run Umbrel OS and WordPress on the ThreeFold Grid, with shell scripts, Nginx, and $\rm CI/CD$ pipelines via GitHub Actions.

INI Parser

Built in Golang; parses INI files by extracting sections, maintaining values, and exporting parsed data back to INI format.

LitFair Server (Graduation Project)

Developed backend for an AI-powered recruitment platform using Express, Mongoose, Sequelize, Multer, Passport.js, and Cloudinary.

${\bf Udagram}$

Deployed a high-availability web app using AWS CloudFormation, EC2, VPC, and S3 buckets.

Leadership & Activities

- Computer Science Circle Leader CAT Reloaded (Jan 2021 Oct 2021)
- Technical Member ICPC Mansoura (Oct 2020 Oct 2021)

Achievements & Certifications

- Professional Front-End Web Development Nanodegree Udacity
- Web Development Using Node.js and Angular NTI