## Omar Kassem

### Software Engineer

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### **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 Grid-Client to ping third-party services on separate stacks, switching to the next stack if one fails.
- Implemented a chain event listener in the TFChain client to subscribe to specified blockchain events.
- 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 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.

### 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
- $\bullet\,$  Web Development Using Node. js and Angular – NTI