

Cairo, Egypt
+201223699925
a.kader.r5o@gmail.com

Abdelkader Rafaat

Web Site
github/Afret22
linkedin/abdelkader-rafaat

SHORT SUMMARY

I am a passionate software engineer with a keen interest in leveraging software to solve complex problems. Open-minded about technology, I am a quick learner who thrives on challenges and is always eager to acquire new skills. Adaptable and versatile, I am capable of wearing multiple hats and excelling in various roles within a team.

EDUCATION

Canadian Intentional College
Communication and Electronics Major

Fall 2013 - Spring 2018

- Graduation project: **Visually impaired guiding system** that is composed of two main parts: an **Android App** for object detection and face recognition and audio guidance for the user, and a **wearable belt** for obstacle avoidance and elevation detection.
- **Main courses:** Computer Organization and Architecture, Computer Networks, C++ Programming

WORK EXPERIENCE

Software Engineer
Reality Interactive

September 2023 - Present
USA (remote)

- Developed and maintained a multi-tenant, distributed event-sourcing application for store management, utilizing **Vue** and **Tailwind CSS** for the frontend, and **Node.js**, **Express**, **TypeORM**, and **MSSQL** for the backend. Managed the infrastructure on **AWS**, with a primary focus on backend and DevOps development.
- Designed and implemented a new service leveraging **event-driven architecture** to process video content efficiently, improving scalability and performance for real-time video processing workflows.
- Helped design and develop a new service to stream live content (e.g., **HTML**, **JavaScript**) to media kiosk players, ensuring seamless playback and high availability for end-users.
- Maintained and enhanced a legacy **C#.NET** multi-tenant distributed advertising management system, widely utilized by major U.S. companies, and successfully migrated components of the system to a serverless architecture.
- Conducted code reviews and performed ongoing maintenance across multiple projects, ensuring adherence to best practices, optimizing performance, and enhancing code quality.

Software Engineer
Truebase

February 2023 - September 2023
USA (remote)

- Developed and optimized a high-performance data pipeline capable of aggregating and augmenting millions of records to be used by our AI data model.
- Utilized advanced web scraping techniques and leveraged the **Wikipedia Query Service** to enrich our scraped data and ensure its accuracy and completeness.
- Designed and implemented complex data mapping processes as part of our pipeline architecture to ensure seamless integration and robust data flow.
- Crafted efficient and effective queries that enabled fast searches through millions of records, providing our team with quick and easy access to the information they needed.
- Collaborated with the frontend team to develop and maintain user interface components using modern web technologies such as **React**, to ensure a seamless user experience.

Software Engineer*Talaat Moustafa Group (TMG)***April 2022 - February 2023***Cairo*

- Worked on a new platform providing e-commerce shopping and online services booking using **Node.js**, **Nest.js**, **TypeScript**, **Express.js**, **MongoDB**, and **Redis**.
- Managed a small team of two junior full-stack developers to ensure delivery with best practices and quality.

Software Engineer*Werkdata OÜ***May 2021 - Sep 2022***Estonia (remote)*

- Developed and maintained features for a supplier relationship management web app using **React**, **Node.js**, and **Firebase**.
- Was responsible for the migration of a **Firebase**-based system to **TypeScript**, **Nest.js**, **GraphQL**, **PostgreSQL**, and **AWS**.
- Reverse-engineered an old **PHP**-based site to a modern stack using **TypeScript**, **Nest.js**, **GraphQL**, **Redis**, and **PostgreSQL**.

Software Engineer*Self-Employed***Aug 2020 - May 2021**

- Worked as a freelance full-stack developer using the **MERN** stack to build web apps for different small-sized startups in Egypt. Some projects are listed below.

Software Engineer*EgyRobo***Aug 2019 - April 2020**

- Delivered KUKA robotic arms industrial solutions guided by computer vision and machine learning to achieve several tasks using **KRL (KUKA Robotic Language)** and **Python OpenCV**, such as material handling and welding.

SKILLS

Programming Languages

TypeScript, JavaScript, Golang, C#, Python.

Frontend

React.js, Vue.js, Next.js, MUI, Mantine, Tailwind CSS.

Backend

Node.js, Express.js, Nest.js, .Net, Flask, FastApi, GraphQL, RabbitMQ, SQS

Databases

MongoDB, Mongoose, Redis, PostgreSQL, MSSQL, TypeOrm

DevOps

AWS, Docker, Virtual Machines(VmWare) ,Kubernetes (fundamentals)

Python libraries

OpenCV, NumPy, Pandas, Tesseract

Testing

Mocha, Cypress

Other

Linux, Bash