# Kareem Gabr

# Senior Frontend Engineer

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# **SUMMARY**

Senior Frontend Engineer with over 5 years of experience building high-performance, scalable, and maintainable web applications using Angular, React, and modern frontend tooling. Specialized in micro frontends, shared component architectures, performance optimization, and complex data visualization. Proven ability to reduce build and load times, lead architectural modernization, migrate legacy systems, and elevate UI/UX quality across enterprise platforms. Passionate about mentoring, knowledge sharing, and delivering clean, tested, production ready code.

#### WORK EXPERIENCE

# **Siemens Digital Industries Software**

Cairo, Egypt

# Senior Frontend Engineer

02/2020 - Present

- Led architectural improvements and large-scale refactoring of legacy codebases to align with modern standards improving maintainability and performance.
- Collaborated with design and engineering teams to refactor and enhance the UI/UX of <u>Questa Verification IQ</u> using best practices, reducing UI issues by 60% and boosting user satisfaction.
- Developed interactive data visualization features for <u>Questa Verification IQ</u>, increasing user engagement by 40% and reducing time spent on analyzing verification results by 55%.
- Created a cross-framework plugin generator to easily create plugins of any framework such as React, Vue.js or Angular to work as a plugin inside Questa Verification IQ framework via Micro Frontends.
- Built a chrome web extension to detect and report redundant API calls during development and testing.
- Architected a framework-agnostic shared component library, allowing seamless component integration written in React, Vue, Angular, or Vanilla JS via Vite and Micro Frontends.
- Reduced build time by 90% and bundle size by 73% for <u>Questa Verification IQ</u> through optimizations including code splitting and tree shaking and optimized application performance by 75%, reducing page load time and improving user experience.
- Conducted thorough code reviews to ensure quality and adherence to best practices.
- Prototyped new UI concepts, authored functional specifications, and led early-stage ideation for innovative product features.
- Implemented automated tests with achieving 90%+ code coverage and reducing production issues by 83%.
- Migrated Coverage Analyzer from Angular 2 to Angular 18 with no functionality compromises, 0% data loss and critical performance enhancements.
- Mentored junior developers and new team members, fostering a collaborative and knowledge-sharing environment.
- Conducted multiple knowledge sharing sessions on emerging frontend technologies to development teams, promoting best practices and industry trends.
- Mentored multiple students on their senior thesis project, resulting in 11 students receiving honors at graduation.

# Microfilm and Documentation Center (MDC)

Cairo, Egypt

# Freelance Frontend Engineer

06/2021 - 03/2022

- Collaborated with a team of 3 developers to successfully deliver an ERP system using React and Redux on time, on budget, and with a 100% bug-free launch while resulting in a 20% increase in overall efficiency for the company.
- Created a shared library for custom components to be used across different parts of the system.
- Created a search engine for archives using Angular for Frontend and Node.js for Backend.
- Leveraged JavaScript to create interactive components and animations, resulting in improved user experience.

ITSC - Egypt Cairo, Egypt 06/2019 - 10/2019

# Full Stack Developer Intern

Maintained the frontend for several ports which integrates the working cycle of Ministry of Tourism with Ministry of Internal Affairs.

- Implemented some software engineering architecture and design patterns.
- Developed a modular, single-page web application in Angular that incorporated responsive design principles.

Incorporated third-party APIs into the web application for data exchange and real-time updates.

# **SKILLS**

Angular, React, Next.js, Vite, Stencil, HTML5, CSS3, SASS/SCSS Frontend:

Redux, Redux Toolkit, NgRx, RxJS, React Query **State Management: UI / Styling:** Tailwind, Bootstrap, Material UI, Styled-Components

**Data Visualization:** D3.js, ApexCharts, Ag-Grid, Chart.js

**Testing:** Jest, Jasmine, Karma

**DevOps / Tools:** Git, GitLab, Perforce, Docker, Jenkins, GCP, Webpack, SonarQube, Sentry.io

Backend & Databases: Node is, SOL, PostgreSOL, Firebase, GraphOL Design & UX: Figma, Photoshop, Responsive Design, Accessibility

**Architecture:** Micro Frontends, Shared Component Libraries, Performance Optimization

TypeScript, JavaScript, C/C++, Java, Python Languages:

# **EDUCATION**

# Cairo University, Faculty of Engineering

Giza, Egypt

Bachelor of Communication and Computer Engineering

06/2020

GPA: 3.3

#### **CERTIFICATES**

# **Generative AI with Large Language Models**

08/2025

DeepLearning.AI & AWS

**Generative AI for Everyone** 

08/2025

DeepLearning.AI

Complete Web & Mobile Designer: UI/UX, Figma, +more

03/2023

Advanced Frontend Development Nanodegree (React)

01/2021

**Udacity** 

Angular - The Complete Guide

09/2019

Udemy

# **LANGUAGES**

**English** Bilingual Arabic Native

French Daily Conversations

N5Japanese