OMAR SADEK

github.com/sadekomar
sadekm.omar@gmail.com
linkedin.com/in/sadekomar
+201005560827

Full-Stack Software Engineer

sadekomar.com

SKILLS

React
JS/TS
HTML/CSS/Tailwind
Python
SQL
Git/Github
C
Bash/Linux

LANGUAGES

English C2
Fluent/Bilingual Level

French B1
Intermediate Level

EDUCATION

Misr International University — 2018 - 2023
BSc. Electronics & Communications Engineering
Coursework: Microprocessor Based Systems, Logic Circuits Design, and Programming with C++...

Egypt British International School — 2015 - 2018
IGCSE, British Secondary School Certificate

EXTRACURRICULARS

Toastmasters Cairo
3x Winner of Best Table Topics Speaker.

Philosophy Instructor Campaigners MIU

Secretariat/Instructor, CIMAL AUC

EXPERIENCE

SA Intern, Dell Technologies — Aug 2022 - Sep 2022
- Gained hands-on experience with Docker and RedHat Linux Shell including file systems, system permissions, SSH, and password aging.
- Built a strong technical foundation with courses on Data Center Architectures and Storage Systems (ISM).
- Explored diverse tech fields like AI, DevOps, Testing, and 5G while collaborating with industry professionals, culminating in a team project that integrated both technical and design insights.

Software Engineer, UNITAR (UN Agency) (Contract) — Sep 2024 - Nov 2024
- Tasked with developing the Frontend of a React-TypeScript web app.
- Led the creation of the UI designs in Figma, optimizing the layout for a consistent user experience across devices.
- Improved project organization by separating concerns, including routing, initialization, and modular components.
- Collaborated in a cross-functional team using agile methodologies and version control best practices, including sprint planning, Git workflows, and feature branching, to ensure timely delivery and a clean codebase.

Access Transmission Engineer Intern, Orange Egypt — Jul 2022 - Aug 2022
- Freed up to 15% bit rate of a portion of the cell sites within the OE network previously taken up by E1 interfaces.
- Phased out the obsolete PDH E1 interfaces, freeing up bit rate for the more contemporary networking protocols (VLAN).
- Worked with NEC & Ercisson NMS.

Software Engineering Instructor, ITI — Jul 2023 - Aug 2023
- Taught core programming concepts to 30+ high school students, covering loops, conditionals, functions, and program flow.
- Guided students in mastering abstractions, debugging, and best programming practices.
- Earned positive feedback, with many students expressing excitement over their "aha" moments when grasping new concepts.

Control Systems Engineer Intern, Yokogawa Electric Corporation — Aug 2019 - Sep 2019
- Explored process variables and instrumentation and worked with sensors such as strain gauges, thermistors, and displacers.
- Learned about process control using PLC, SCADA, and DCS.
- Analyzed control valves according to their various classifications based on function, application, motion, and end-connection.
- Utilized Automation Studio to create simple pneumatic systems.

COURSES

- **CS50, Harvard University X**

- **Introduction to Databases with SQL by CS50**

- **CS50 Web Programming with Python and Javascript by CS50**

- **Prompt Engineering for Developers by DeepLearningAI**

- **Introduction to Web Technologies by ITI**

PROJECTS

Front-End React Web App

loomcairo.com
- Created a user-friendly UI, earning consistent praise from users and developers.
- Ensured all React components were atomic, well-managed, and maintained modularity to prevent project sprawl.
- Organized project structure into components, data, layouts, pages, and utilities to promote ease of navigation.

DB Design and Performance (SQLite)
- Designed and implemented a highly normalized SQLite database, adhering to 1NF, 2NF, and other normalization forms.

Web Scraper with Python (Python/BS4)
- Designed and implemented robust web scrapers using OOP principles, capable of data extraction from a wide range of different website types.
- Created custom context managers for managing DB locks, exception handling, and logging to ensure reliability. Also created unit tests to aid in development.
- Utilized SOLID principles to improve maintainability and scalability. For instance, using abstract methods to enforce consistency across subclasses.

Data Labeling and Classification System (Python/TensorFLow)
- Developed a TensorFlow Model for image classification.
- Created algorithmic labelers that utilize existing attributes and scraped data for classification.

Figma Design and Prototyping
- Designed a complete UI, using features like AutoLayout, frames, grids, and styles for a polished, consistent UI.
- Developed responsive designs, starting from mobile-first.
- Created a Design System to maintain consistency across the project.
- Applied a deep understanding of CSS to map designs effectively.

AI Wrapper for Real Estate (Python/Flask, JS)
- Developed an AI wrapper using Flask, JS, and the Gemini API to assist professionals in the real estate field. The model is provided with data and custom prompts to improve accuracy of responses.

Sort & Search Algorithms (C)
- Implemented various sorting & search algorithms using C: merge, selection, and bubble sort & linear and binary search.
- Solved multiple problems that range from a Caesar cipher to a Credit card checksum.

Collatz Conjecture (C)
- A recursive algorithm to solve the collatz conjecture.

Sobel Filter for AI (C)
- Created a filter that does a convolution operation with two kernels, creating an edge detection filter or sobel filter using C.

Tideman Voting System (C)
- Created a voting system that identifies and sorts pairs of candidates, ultimately using an adjacency matrix to represent a graph that'll determine the winner.