

# Abd El-Twab M. Fakhry

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## EDUCATION

### Faculty of Engineering, Al-Azhar University

Bachelor of Science (BSc) in Computers and Systems Engineering.

Cairo, Egypt

Sep. 2017 – Aug. 2022

## EXPERIENCE

### **Atomica AI** | Full-time | Remote



Software Engineer II

Cairo, Egypt

Nov. 2022 – Present

- Developing over 3 internal tools with varying degrees of complexity that cater to the specific needs of each team, improving their workflow, boosting their capabilities, and simplifying their tasks. C/C++, Qt/QML, CMake, and Git are being utilized to construct and manage the tools.

## EXTRA-CURRICULAR ACTIVITIES

- Finalist at the 2020 Africa & Arab Collegiate Programming Championship. 
- 2x Finalist at Egyption Collegiate Programming Contest in 2019 and 2020.
- 3rd & 2nd place at Al-Azhar Collegiate Programming Contest in 2019 and 2020 respectively.
- Taught algorithmic topics, data structures, and problem-solving paradigms to over 50 participants. 
- Offered training at various levels and composed problems for weekly practice sheets and competitions.
- Successfully tackled over 1000 algorithmic challenges on various online judging platforms.

## SELECTED PROJECTS

### **Loc** | Flutter | Android

Jan. 2023 – Present

Free and open-source location-based reminder for Android.

- Developing "Loc," a reminder app that utilizes Open Street Map and enables users to set multiple reminders with customizable radius, notes, and actions. The app delivers an audible alert upon arrival. In addition, "Loc" offers various features such as a dark/light theme, offline/online usage, live location display, and persistent data storage.

### **Devault** | Next.js - Hardhat - Docker | dApp

Apr. 2022 – Jul. 2022

A Blockchain-based, decentralized, and end-to-end encrypted cloud storage.

- Designed a decentralized application (dApp) called "Devault" with Next.js and Solidity, integrated with various cryptocurrency wallets like Metamask for user login. The dApp uses a smart contract as a public database and securely stores/retrieves files using IPFS network and client-side encryption/decryption techniques.

### **Next Prayer** | C/C++ - CMake | CLI

Sep. 2021 – Present

Islamic prayer notifier for Unix status bars.

- Creating "next-prayer," a software that utilizes web APIs to obtain one year of prayer timings, caches them locally for offline access, sends adhan notifications, displays the next prayer and its time in the status bar, and allows users to configure their preferences through a configuration file.

### **Anthology of Algorithms and Data structures** | C++ | library

Aug. 2020 – Present

Common code for competitive programming in C++.

- Writing a C++ library for competitive programming that extensively covers over 6 topics, such as graph theory, mathematics, geometry, problem-solving paradigms, string processing, and data structures. The code is accompanied by comments that provide an overview of its space and time complexity.

## TECHNICAL SKILLS

 **Languages:** C/C++ • Java • Python • Go • JavaScript • Solidity • Bash • Lua • SQL •  $\text{\LaTeX}$  • HTML/CSS

 **Technologies:** React.js • Node.js • Flutter • Qt/QML • Blockchain

 **Tools:** Linux • Emacs • Git • CMake • Docker • CI/CD • Figma

Last updated on April 27, 2023