

# Mahmoud Adas

Software Engineer - Egypt

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## Education

Cairo University, Faculty of Engineering | Egypt

Sep 2015 - Jul 2021

B.S. in Computer Engineering

## Tools

- C, C++, Go, Python, Java, Rust, JS/HTML/CSS
- Qt, QML, ReactJS, ImGui, OpenGL, Spring, Android
- Docker, CMake, SQLite, git, MySQL, Linux

## Experience

C++ Software Engineer III

Jun 2021 - Mar 2022

[Atomica](#) (360Imaging) - Dokki, Egypt

- Joined the internal-tooling team then the launcher team
- Contributed to the launcher app the main entry and **installer** of the whole suite of products
- Built several internal C++ libraries and a GUI tool to work with **cloud data** for the flagship product
- Built SQLite-C++ **boilerplate generators** to increase developers' productivity
- Made several fixes and improvements to [mn](#) and internal core libraries used across the company

Software Engineering Intern · [Cert](#)

Jul - Sep 2020

[Solectra LLC](#) - ElGouna, Egypt

- Worked on an **IoT** system that collects and analyses data from electric vehicles to report trips, total revenue, and energy
- Improved performance and prediction correctness, and added various tests

## Projects

360Launcher

Jan - Mar 2022

Qt/QML/C++ app to install/update/launch main products and integrate with them

Library Editor

Sep - Dec 2021

- ImGui/C++ internal tool to modify/upload versioned metadata and information
- Used by the product managers to update domain-specific logic without new app release
- With a bunch of CLI tools, generates boilerplate code to interface with the SQLite file it creates

DPSX-Sync

Jun - Aug 2021

- Qt/QML/C++ experimental Dropbox-like app to add sync and collaboration features
- Uses libgit and Gitea server for versioning and synchronization

C4IAN (Graduation Project) · [Repo](#)

Feb - Jul 2021

- Tactical Mobile ad-hoc network. Supports video/audio streaming and messaging
- ZHLS+ZID unicast, ODMRP multicast, and geo-based broadcast
- **Golang** router that integrates with the Linux network stack

OpenYSF · [Repo](#)

Nov 2021 - Present

A [ysflight](#) flight simulator clone, for learning and fun. Backward compatible with ysflight assets

Apex · [Backend](#) · [Frontend](#) · [Android](#) · [Testing](#)

Jan - Mar 2019

- Social Media app for web and Android that mimics Reddit
- Worked with a **team of 18**
- Used Travis-CI for CI/CD, **GoogleCloud**, Docker, **DockerCompose**, and Datadog for monitoring

<b>Koos</b> · <a href="#">Repo</a> · <a href="#">Rust Rewrite</a>	<b>Jun 2019</b>
<ul style="list-style-type: none"> <li>Decentralized social media app, built on <a href="#">Fluence</a>. AssemblyScript/Rust for server, React for frontend</li> <li>The project <a href="#">won</a> a <a href="#">Bitcoin bounty</a> from Fluence for the best app that uses the technology</li> </ul>	
<b>Mini-Search-Engine</b> · <a href="#">Repo</a>	<b>Feb - Mar 2020</b>
<ul style="list-style-type: none"> <li>Regular and image search with trends detection</li> <li>Java Spring + <b>ReactJS</b></li> </ul>	
<b>Match Reservation System</b> · <a href="#">Repo</a>	<b>Jan - Feb 2021</b>
<ul style="list-style-type: none"> <li>Web application for Egyptian Premier League. Reserve your seat on future matches</li> <li><b>MongoDB + Node.js</b> + ReactJS</li> </ul>	
<b>NesEmu</b> · <a href="#">Repo</a>	<b>2019 - Present</b>
NES console <b>emulator</b> in C++. Hobby project	
<b>Cartoonization</b> · <a href="#">Repo</a>	<b>Oct - Dec 2019</b>
<ul style="list-style-type: none"> <li>Snapchat Clone written in Python draws stickers on live recordings of faces</li> <li>Implemented GUI, rendering stickers, and HOG algorithm</li> <li>Used Viola-jones/Hog to detect faces, and multiple <b>image processing</b> techniques to filter the input</li> </ul>	
<b>RetroSoccer</b> · <a href="#">Repo</a>	<b>Jan - Mar 2019</b>
Multiplayer soccer game entirely in x86 IA32 MASM assembly with chat (serial communication)	
<b>Simple PDP--11</b> · <a href="#">Repo</a>	<b>Oct - Dec 2019</b>
<ul style="list-style-type: none"> <li>Design and simulation of a CPU architecture similar to <i>PDP--11</i> in VHDL and Vunit for test benches</li> <li>Designed and implemented automated tests for the CPU</li> </ul>	
<b>TheMistake</b> · <a href="#">Repo</a>	<b>Jan - Mar 2019</b>
<ul style="list-style-type: none"> <li>Maze solver car using flood fill algorithm on <a href="#">TIVA-C <math>\mu</math>c</a>/Arduino-Uno with ultrasonic and IR sensors</li> <li>Implemented maze-solving and tested it</li> </ul>	
<b>Paint-For-Kids</b> · <a href="#">Repo</a>	<b>Jan - Mar 2017</b>
C++ GUI application for kids to draw and play with shapes, with two game modes. OOP school project	
<b>Outbreak</b> · <a href="#">Repo</a>	<b>Jun 2018</b>
Java/libgdx clone of the classic game "Outbreak"	
<b>InventoryApp</b> · <a href="#">Repo</a>	<b>Jun 2018</b>
Android CRUD app to keep track of inventory items in a store	