# 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 - El Gouna, Egypt

- Worked on an embedded system that collects and analyses data from electric vehicles to report trips, total revenue, and energy
- Fixed several bugs, 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 <u>ysflight</u> flight simulator clone, for learning and fun. Backward compatible with ysflight assets

#### Apex · <u>Backend</u> · <u>Frontend</u> · <u>Android</u> · <u>Testing</u>

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

Koos · Repo · Rust Rewrite Jun 2019

• Decentralized social media app, built on Fluence. AssemblyScript/Rust for server, React for frontend

• The project won a Gitcoin bounty from Fluence for the best app that uses the technology

#### Mini-Search-Engine · Repo

Feb - Mar 2020

• Regular and image search with trends detection

• Java Spring + ReactJS

#### Match Reservation System · Repo

Jan - Feb 2021

• Web application for Egyptian Premier League. Reserve your seat on future matches

• MongoDB + Node.js + ReactJS

NesEmu · Repo 2019 - Present

NES console **emulator** in C++. Hobby project

Cartoonization · Repo

Oct - Dec 2019

Oct - Dec 2019

• Snapchat Clone written in Python draws stickers on live recordings of faces

• Implemented GUI, rendering stickers, and HOG algorithm

• Used Viola-jones/Hog to detect faces, and multiple **image processing** techniques to filter the input

RetroSoccer · Repo Jan - Mar 2019

Multiplayer soccer game entirely in x86 IA32 MASM assembly with chat (serial communication)

Simple PDP--11 · Repo

• Design and simulation of a CPU architecture similar to PDP--11 in VHDL and Vunit for test benches

• Designed and implemented automated tests for the CPU

TheMistake · Repo Jan - Mar 2019

• Maze solver car using flood fill algorithm on <u>TIVA-C μc</u>/Arduino-Uno with ultrasonic and IR sensors

Implemented maze-solving and tested it

Paint-For-Kids · Repo Jan - Mar 2017

C++ GUI application for kids to draw and play with shapes, with two game modes. OOP school project

Outbreak · Repo Jun 2018

Java/libgdx clone of the classic game "Outbreak"

InventoryApp · Repo Jun 2018

Android CRUD app to keep track of inventory items in a store