

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, Bash, VHDL, LaTeX
- **Android, Spring**, ReactJS, python-flask, OpenGL
- **Docker, MySQL**, git, google-cloud, SQLite, CMake

Experience

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

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

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.

Koos · [Repo](#) · [Rust Rewrite](#)

Jun 2019

- Decentralized social media app, built on [Fluence](#). AssemblyScript/Rust for server, React for frontend
- The project [won](#) a [Bitcoin 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

Cartoonization · [Repo](#)

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

NesEmu · [Repo](#)

2019 - Present

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

RetroSoccer · [Repo](#)

Jan - Mar 2019

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

JetSimulator · [Repo](#)**Oct 2018 - Present**

C++ 3D flight simulator using OpenGL, started as a graphics school project. A hobby project for now

Simple PDP--11 · [Repo](#)**Oct - Dec 2019**

- 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 [TIVA-C \$\mu\$ c](#)/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