# Mohamed Alharouni

mohamedharouni1@gmail.com
+201281329600

## EDUCATION

**ALEXANDRIA UNIVERSITY**
BS in Computer and Communication Engineering
September 2016 - June 2021
Faculty of Engineering
GPA: 3.27 / 4.0

## LINKS

Github: **mharouni**
LinkedIn: **mohamedharouni**
Website: **Mohamed Alharouni**

## COURSEWORK

**UNDERGRADUATE**
Operating Systems Implementation
Data Structures and Algorithms
Computer Networks
Computer Organization and Architecture
Database Systems
Artificial Intelligence
Microprocessors
Embedded Systems

**ONLINE COURSES**
IBM Cloud Application Developer
The Complete 2020 Web Development Bootcamp
The Complete iOS Development Bootcamp

## SKILLS

**LANGUAGES**
English • Arabic

**TECHNICAL SKILLS**
Programming Languages:
C/C++ • Assembly • Java •Swift

Scripting Languages:
Python • Javascript • Bash

Other:
Linux • Docker • Kubernetes
Node.js • React.js • HTML
Git • MySQL • AWS

## PROJECTS

**HUFFMAN COMPRESSION** | Java compression engine
Developed a Java Application that uses Huffman coding Algorithm to compress files.

**FILE SYSTEM AND PIPE DEVICE** | XINU OS File System
Implemented a Unix-like File system on a RAM device, added shell features and commands to use it and incorporated a Pipe device.

**READERS/WRITER LOCKS** | Solution for Readers/Writer problem in XINU
Implemented a solution to solve the readers/writer problem and handle priority inversion in **XINU** using locks and priority inheritance.

**DEADLOCK DETECTION AND PREVENTION** | XINU Deadlock Detection and Prevention mechanism
Solved the Deadlock problem by implementing a mechanism to detect and handle deadlocks caused by Readers/Writer locks in **XINU**.

**HTTP PROXY SERVER** | Parallel HTTP proxy server
Implemented a python proxy server that handles HTTP GET requests, and uses the asyncio module to handle multiple clients simultaneously.

**CLIMA** | iOS weather App
Developed an application that displays the weather information based on the GPS location, and it is also possible to search for a city and display the current weather in that city.

**BITCOINTRACKER** | iOS App That tracks the real-time value of the Bitcoin
Developed an IOS App that tracks the real-time value of bitcoins and displays it in one of several currencies the user can choose from.

**SIMPLE TFTP SERVER** | Simple Text File Transfer Server
Implemented a simple server that handles Trivial File Transfer Protocol requests from TFTP clients using Python.

**OS SCHEDULER** | XINU OS short-term scheduler
Incorporated aging and the proportional share scheduling policies in the **XINU** kernel.

## EXTRACURRICULAR ACTIVITIES

| | | |
|---|---|---|
| 2016 | present | Rotaract club of Alexandria Sunrise Member |
| 2016 | 2017 | Community Service Committee Director |
| 2017 | 2018 | Club Treasurer |
| 2018 | 2019 | Club Service Committee Director |