

Mohamed Alharouni

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EDUCATION

ALEXANDRIA UNIVERSITY
BS IN COMPUTER AND COMMUNICATION
ENGINEERING
September 2016 - June 2021
Faculty of Engineering
GPA: 3.26 / 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 • MySQL
Git • HTML • Node.js • AWS

PROJECTS

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.

HUFFMAN COMPRESSION | JAVA COMPRESSION ENGINE

Developed a Java Application that uses Huffman coding Algorithm to compress files.

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