

Mostafa Abdelaziz

Computer and Systems Engineer

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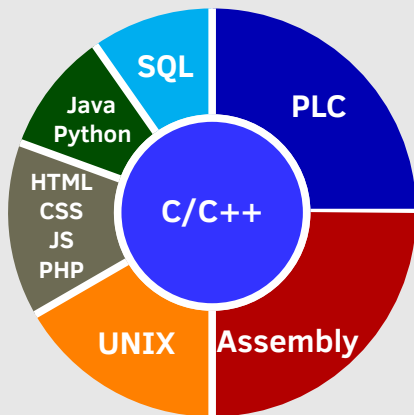
<https://iocoder.github.io>

[linkedin.com/in/mabdelaz](https://www.linkedin.com/in/mabdelaz)

About me

Computer software engineer with wide technical expertise in software engineering, computer networks, database systems, computer architecture, and embedded systems.

Skills



OS

GNU/Linux

FreeBSD

Windows

★★★★★

★★★★★

★★★★★

Languages

English (IELTS 7.5)

Arabic (Native)

Italian (Beginner)

Education

2011 - 2016 **B.Sc., Computer and Systems Engineering**

Alexandria University

GPA: 3.94.

Overall Ranking: 1st.

Graduation Project: FPGA computer based on MIPS architecture.

WES Evaluation: currently in progress.

2008 - 2011 **High School**

Mubarak Secondary School, Alexandria

Overall Grade: 407.5/410 (99.36%).

Specialization: Mathematics.

Experience

2017

Research Assistant

Simon Fraser University, BC

Implementation of an LTE base station using *Ettus B210 USRP* and *OpenAirInterface*.

2017

Control Systems Engineer

Advanced HVAC Consultant, Cairo

Implementation of feedback control loops for HVAC systems using *Fupla* (function block diagrams) on *Saia Burgess PLC* devices. The work included:

1. Control loops for airhand units (fans, valves, and sensors).
2. Control loops for chillers and water pumps.
3. Interfacing *Saia Burgess PLCs* and *Honeywell Eagle DDCs* using Modbus and Bacnet/IP.
4. Developing interactive Human-Computer Interfaces using *Tridium controller* to interface the human operator with PLC logic.
5. Instructing our teams on the implementation of electrical boards composed of high-voltage relays and networks of PLCs and RIOs.
6. Troubleshooting and solving technical problems at the field.

2016

Software Engineer

Ejada Systems Ltd., Alexandria

Providing enterprise solutions to banks in the Middle East, including:

1. Implementation of **CRM** systems using **Oracle Siebel**.
2. Developing **BigData** solutions using **Hadoop** and **Scala**.

2015

RA Intern

SmartCI Research Center, Alexandria

Programming the storage system of a cognitive radio cloud, which consisted of Linux nodes with ext2fs, using IP multicast and filesystem-aware data compression.

Selected Projects

- Quafios: An Operating System for x86 and MIPS. The system included:
 - Implementation of a UNIX-like system call interface.
 - Device drivers for PCI, USB, ATA, timers, interrupt controller, keyboard controller, and other hardware components.
 - Dynamic kernel-space and user-space memory allocation algorithms.
 - Implementation for C library routines.
 - A GUI, with a programmer-friendly API.
- Compiler for subset of C and Java Programming Languages
- CDP: Reliable Data Transfer Protocol for Linux Kernel TCP/IP Stack.
- Designed a Linux kernel device driver and synchronization assignment for OS course at Alexandria University.
- Liftroid: Visualized elevator Android interface with AVR.
- Technical Report on *Unified Extensible Firmware Interface*.

Selected Awards

2017

CSED Golden Armor for the **Top Student** of 2015-2016 Class.

2017

Prof. Naeem Abou Taleb Award for **Top Student**.

2012 - 2016

Certificate of Excellence, Alexandria University.