# ABDELSALAM

# **ELTAMAWY**

Self Introduction Video

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#### in linkedin.com/in/abdelsalam-et

## **EDUCATION**

The American University in Cairo (AUC) ## 2017-2022

- Cairo
- > BSc in Computer Engineering
- > Graduated with High Honors. GPA: 3.6/4.0

International School for Elite Education ## 2011-2017

- Cairo
- Graduated with High Honors

# SELECTED PROJECTS

Machine learning based decompiler (7) \pm 2021-2022

Python Pytorch Graph ML Anaconda

- > Completed Bachelor thesis
- > Transformer based decompiler targeting android.
- > Novel tree graph generator for AST representation.
- > Designed to be a forensic malware tool.

Persistance of vision display



**#** 2021

Embedded (C) (STM32) (ESP32) (HAL)

ESP-IDF

- > Created high speed fan display and embedded system to fulfill millisecond timing constraints.
- > Featured embedded web server for user accessibility.

Distance sensor from scratch

**#** 2021

Embedded | C | STM32

- > Reverse engineered market boards to create more accurate sensor.

RISC-V microarchitecture

Ultrasonic distance sensor.



**#** 2021

Verilog | (RISC-V ASM) (Xillinix)

> Implemented 6 pipeline RISC-V microarchitecture on an FPGA in Verilog fulfilling specification requirements.

LANGUAGES (Lines of Code) >

Python(38k)

C++(35k)

LAT<sub>E</sub>X(25k)

Verilog(5k)

Java(5k)

Kotlin(2k)

Rust(2k)

Dart(2k) Javascript(2k)

Bash(1k)

SQL(1k)

# **HOBBIES**

#### PC enthusiast

- > Build own liquid cooled computer.
- > Administer homelab with file, surveillance, DNS servers.

#### 3D printing enthusiast

Designed own 3D printed robot components.

#### **Travel**

> Traveled to most of Europe, the U.S.A, the Middle East and **Africa** 

### **EXPERIENCE**

### Undergraduate teaching assistant

- Assembly&Comp Organization ## 2021-2022
- Computer Architecture

**2020-2021** 

- > Department Tutor
- **#** 2019-2020
- > Programming Fundamentals
- **2018-2020**

Lead research intern

**#** 2020-2021

AUC

> Led team of 4 to create a process that builds application specific RISC-V based CPUs.

Al development intern

**#** 2020-2021

- ▼ Tod-Z (remote)
- > Lead AI and machine learning development.
- > Built entire machine learning stack from concept to training to deployment.

Intern

**## 2020** 

- Agile technologies (remote)
- > Built web store using OutSystems.
- > Regularly communicated for quality assurance.

### **EXTRACURRICULAR**

Reacreational scuba diver

🛗 2009-present

Red Sea

- > Licensed 2-star CMAS scuba diver.
- > Over 200 dives in the red sea.

**ROV** media head

**2017-2019** 

AUC

- > Led team of 5 to market and document Robotics club remotely operated vehicle events.
- > Photographed and documented dozens of events and directed 4 marketing videos.

#### COMPETITIONS

HackTrick Hackathon Reinforcment ML

ICPC ACM Youngest participant

**#** 2022 **#** 2022

**2019** 

Code Geist Hackathon (Android App)

MATE ROV (PCB design)

2017-2019

NASA Camp 1st place

Student Expo 1<sup>st</sup> place Robotics **2015 2014** 

SKILLS >

Git VCS Linux

Docker

English

Arabic