# Abd El-Twab M. Fakhry

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#### **EDUCATION**

# • 🏛 Faculty of Engineering, Al-Azhar University

Bachelor in Computer Engineering

Cairo, Egypt Sep. 2017 – Jun. 2022

## PROGRAMMING CONTESTS ACTIVITY

### • The Africa & Arab Collegiate Programming Championship

Luxor, Egypt

 $\circ$  **2020**: Ranked  $98^{th}$ 

#### • The Egyptian Collegiate Programming Contest

Alexandria, Egypt

2020: Ranked 45<sup>th</sup>
 2019: Ranked 116<sup>th</sup>

# • The Al-Azhar University Collegiate Programming Contest

Cairo, Egypt

2020: Ranked 2<sup>nd</sup>
 2019: Ranked 3<sup>rd</sup>

# • IEEEXtreme Competition

Online

2020: Ranked 4<sup>th</sup> on Egypt
2019: Ranked 4<sup>th</sup> on Egypt

#### Volunteering

#### • Al-Azhar ICPC Community

Cairo, Egypt

Mentor and Problem-setter

Feb. 2020 - Present

- Writing Problems: writing certain number of problems for weekly sheets and contests.
- Training: Providing Multi-Level Training during the year; Teaching the participants Algorithms topics and Data Structures such as sorting, searching, graph theory and dynamic programming, Supporting Participants technically during sessions and online.

Logistician Feb. 2020 - Present

- **Events**: Managing and Booking every event.
- Training: Providing and assure that all tools needed in training sessions are available (e.g. projector, white-board markers, etc...), as well as Providing yearly printed IDs and T-Shirts for all team members.

#### Projects

# • 🏖 Queueing ModelSim

Dec. 2020

- Implemented a software for the calculation of characteristics of different queues having the BMAP (batch Markovian Arrival Process) as a input, as well as the deterministic queues.
- o Tools: Python3, Tkinter(GUI Programming), matplotlib.

#### • Anthology of Algorithms and Data structures

Aug. 2020 - Present

- Implemented an open source library for Common Code for Competitive Programming in C++ including Graph Theory, Dynamic Programming, Mathematics, Computational Geometry, String Processing, Data Structures and more advanced topics, which i've learned through my training.
- ∘ Tools: C++

#### Programming Skills

- Programming Languages: C/C++, Python, Java, Matlab/GNU Octave, SQL, Bash/Shell, Emacs Lisp.
- Markup Languages: LaTeX, Markdown, HTML, CSS.
- Technologies & Tools: Linux, Git, GNU Debugger (gdb), Emacs, Docker.