# Abd El-Twab M. Fakhry

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#### EDUCATION

# • **\hat{\pi}** Faculty of Engineering, Al-Azhar University

Cairo, Egypt

Bachelor in Computer Engineering

Sep. 2017 - Jun. 2022

### Programming Contests Activity

- 98<sup>th</sup> Rank 2020 in The Africa & Arab Collegiate Programming Championship
- 45<sup>th</sup> Rank 2020 and 116<sup>th</sup> Rank 2019 in The Egyptian Collegiate Programming Contest
- $2^{nd}$  Rank 2020 and  $3^{rd}$  Rank 2019 in The Al-Azhar University Collegiate Programming Contest
- $4^{th}$  Rank 2020 and  $4^{th}$  Rank 2019 in IEEEXtreme 14.0 and 13.0

#### EXPERIENCE

## • 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.

LogisticianFeb. 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**

# • **L** Queueing ModelSim

Dec. 2020

- o 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

- o 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, Bash/Shell, Emacs Lisp.
- Markup Languages: LATEX, Markdown, HTML, CSS.
- Technologies & Tools: Linux, Git, GNU Debugger (gdb), Emacs.