Abd El-Twab M. Fakhry

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EDUCATION

- 🏛 **Faculty of Engineering, Al-Azhar University** — Cairo, Egypt
  Bachelor in Computer Engineering — *Sep. 2017 − Jun. 2022*

PROGRAMMING CONTESTS ACTIVITY

- Solved +1000 algorithmic challenges on different online judges.
- Finalist at *Africa & Arab Collegiate Programming Championship* (2020).
- Finalist twice at *Egyption Collegiate Programming Contest* (2019, 2020).
- 3rd and 2nd palce at *Al-Azhar Collegiate Programming Contest* (2019, 2020).

EXPERIENCE & VOLUNTEERING

- **</> Al-Azhar ICPC Community** — Cairo, Egypt
  Mentor and Problem-setter — *Feb. 2020 − Present*
  - **Teaching** Participants Algorithms topics, Data structures and Problem-solving paradigms.
  - **Providing Multi-Level Training** during the year.
  - **Writing Problems** for weekly sheets and contests.
  - **Supporting** Participants technically during sessions and online.

SELECTED PROJECTS

- **Queueing ModelSim** — *Dec. 2020*
  - Implemented a software for the calculation of characteristics of different queues having the BMAP (batch Markovian Arrival Process) as an input.
  - Implemented a deterministic queue model using prefix sum technique, helped to know the characteristics of the queue at any point of time.
  - Tools: Python, Tkinter (GUI Programming).

- **Anthology of Algorithms and Data structures** — *Aug. 2020 − Present*
  - Implementing an open source library for Common Code for Competitive Programming in C++.
  - Including Graph Theory, Problem-Solving Paradigms, Mathematics, Computational Geometry, Game Theory, String Processing, Data Structures, more advanced topics and some helpful tools.
  - Tools: C++.

- **Next Prayer** — *Sep. 2021 − Present*
  - Implementing a prayer reminder for Linux status bars.
  - Using config file for setting the location to make *1 remote API / 6 years.*
  - Maintaining an AUR package for it.
  - Tools: C++, Bash, Python, Roff, Makefile.

TECHNICAL SKILLS

- **Programming Languages**: C/C++, Python, Java (SE), SQL, LaTeX, Bash/Shell.
- **Tools & Technologies**: GNU/Linux, Git, GNU Debugger, Emacs, Vim, SQLite.