

Ahmed Gamal Eltokhy

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EDUCATION

The American University in Cairo

Jul. 2020 - Dec. 2024

Double Major: B.S. in Computer Engineering and Mathematics, **GPA: 4.0**

Relevant Courses: Linear Algebra, Discrete Mathematics, Probability and Statistics, Analysis and Design of Algorithms, Digital Design, Assembly Language, Graph Theory, Modern Algebra

SKILLS

Languages & Frameworks

Software & Tools

C, C++, Python, HTML, CSS, LaTeX, Bash, JavaScript, SQL, Scala

Linux, Git, SSH, bootstrap, QT, Matplotlib, Pandas, Numpy, SMTP, Cron, Mechanize, JSON, Fortinet, MikroTik, Sophos, SystemD, Manim

WORK EXPERIENCE

The American University in Cairo

New Cairo, Egypt

Peer Tutor

Aug. 2021 - May. 2022

- With the coordination of the **SSE in the AUC**, held more than **150** one-on-one tutoring sessions teaching **Calculus I, II, III, Discrete Mathematics, Analysis and Design of Algorithms**, and **Fundamentals of Computing I, II**

STEM High School for Boys - 6th of October

Giza, Egypt

IT Coordinator

Jun. 2017 - Oct. 2019

- Maintained network infrastructure using **Fortinet, MikroTik** and directed the migration for **Sophos** in **17 days**
- Provided live technical support for **450** students and **80** faculty members for **Windows and Linux** personal devices
- Mentored scheduled backups for the used systems with automated testing using **Cron** and **SystemD**

PROJECTS

Digital Clock

May. 2022

- Fabricated a functional digital clock using **Verilog** with customized constraints to be run on **FPGA Boards**

T&J Game: Algorithmic Maze Simulation

May. 2021

- Constructed a maze simulation using **Graph** data structure, **Dijkstra Algorithm** for finding shortest path in an optimal complexity, **Wilson's Algorithm** for maze generation and **QT** for composing the GUI.

Tokhy's Hub

Jan. 2021

- Created a personal blog with a customized **bash** backend and statically hosted pages by HTML and CSS with the goal of minimizing size (**1.19KB**) and maximizing performance for a fully functional blog

The Polar Storm

Jun. 2018

- For NASA Space Apps, analyzed a **86 GB** dataset that tracks spatial and temporal changes in Antarctica using **Pandas, Numpy, Matplotlib, Manim**, and created a visualizing website developed using **HTML, CSS, JavaScript, Bootstrap** with UI designed by **Adobe XD** in a **48-hour** competition

EXTRA-CURRICULAR

Open Source Community - The American University in Cairo, Founder

Aug. 2021 - Present

- Founded and launched the community with the mission of advocating the **FOSS philosophy**, popularizing open source software and contributions workflow, and keeping up with latest OSS updates.
- Raised **129K EGP** in funds within the first semester of launch

ACTIVITIES AND ACHIEVEMENTS

- Silver Medal, ranked **5th out of +250 teams**, in Egyptian Collegiate Programming Contest, 2022
- First place in AUC ACM-ICPC competition, 2022
- Qualified to Dell HackTrick Hackathon finals, 2022
- Second place in AUC ACM-ICPC competition, 2021
- PSSF Scholar, attained a **full scholarship** to pursue the bachelor's degree in AUC, 2020