Ahmed Gamal Eltokhy

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EDUCATION

The American University in Cairo

Jul. 2020 - May. 2025

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 School of Sciences and Engineering 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 staticly 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 36K EGP in funds within the first semester of launch

ACTIVITIES AND ACHIEVEMENTS

Second place in AUC ACM-ICPC competition, 2021 PSSF Scholar, attained a **full scholarship** to pursue the bachelor's degree in AUC, 2020