Youssef Agiza

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EDUCATION

- **The American University in Cairo (AUC)** — Cairo, Egypt
  Bachelor of Science, Computer Science; GPA: 3.945/4.0 — *September 2019 - Expected to graduate by 2023*
  Courses: *Operating Systems, Data Structures, Analysis Of Algorithms, Machine Learning, Software Engineering, Computer Architecture*

- **El Salam School** — Al Qalyoubia, Egypt
  Thanaweya Amma — *September 2005 - July 2019*

SKILLS SUMMARY

- **Programming Languages**: C/C++, Python, JavaScript, SQL, HTML/CSS, Verilog, RISC-V
- **Frameworks/Libraries**: NodeJS, Express, ReactJs, Bootstrap,REST, React Native, Expo, STL, SFML
- **Tools/Skills**: GIT, Docker, PostgreSQL, Design patterns, MySQL, Makefile, Microsoft Office

PROJECTS

- **Medical Health Record Systems using Scrum methodology(In Progress)**: (MySQL, Node js, Flutter)
  - Applied Scrum methodology to organize and build the project.
  - Collaborated with team members to divide the responsibilities.
  - Build the back-end using NodeJs and designed the SQL database.

- **Product reviews sentiment analysis using machine learning model(In Progress)**: (Python)
  - Performed literature review to compare and evaluate the available datasets.
  - Performed pilot study to compare and analyze the results of different learning models and choose the best out of them.

- **RISC-V processor simulator applying Tomasulo's algorithm**: (C++)
  - Structured the application to be modular and maintainable.
  - Implemented and revised the core functionalities.
  - Divided tasks and assigned them to other developers to implement.

- **RISC-V pipelined processor**: (Verilog)
  - Collaborated on implementing and pipelining the processor.
  - Tested and debugged the processor comprehensively both in simulation and on physical chip.

- **Automated academic web advisor**: (ReactJs, NodeJs, Express, MySql, Python)
  - Researched other automated academic advising and synthesized the information to design the project.
  - Self-learned web development (frontend/backend) and the design of SQL databases.
  - Programmed a web-crawler in python to populate the database with the needed data.
  - Designed the database, built the backend using RESTful api's, and implemented the frontend.
  - Deployed the website in the computer department in my university to serve real-life students and monitored their feedback.

- **Set-associative cache simulator**: (C++)
  - Employed LRU, LFU, and random replacement policies for the cache simulator.
  - Coordinated the project OOP structure with other team members.

- **Pacman game**: (C++, SFML, OOP, design patterns)
  - Drafted an Object-Oriented design for the game using UML in collaboration with other team members.
  - Searched into the original Pacman game to construct similar algorithms for the characters' behavior.
  - Improved the game using polymorphism and design patterns such as Singleton and Observer.
  - Implemented graph data structure and applied Dijkstra's shortest path algorithm.

Extracurricular Activities

Leadership Course(Certified) — AUC, Cairo, Egypt — *Feb 2020 - Present*
- *Attended equivalent of 30 hours of class time about leadership. Practiced and discussed different leadership styles.*

Cloud Computing, Mentor, Google Development Student Club(GDSC) — Cairo, Egypt — *Feb 2022 - Present*
- *Prepared and held mentoring session(s) in cloud computing in google summer jam*

Student Union Mobile Application, General Manager, Student Union — AUC, Cairo, Egypt — *Feb 2020 - Present*
- *Maintained a mobile application used by over 6000 users. Lead and trained members to contribute to collaborate and contribute to the application*

Cyber Security, Member, Github Community — AUC, Cairo, Egypt — *Feb 2022 - Present*
- *Learned the basics of ethical hacking*

Block Chain, Member, Github Community — Cairo, Egypt — *Feb 2022 - Present*
- *Learned the basics of block chain and it usages*

Competitive Programming Winter Camp — Cairo, Egypt — *Jan 2022 - Feb 2022*
- *Practiced different competitive programming skills on different online judges*

Marketing Committee, Member, Developers Club — AUC, Cairo, Egypt — *September 2020- May 2021*
- *Digitally marketed for the clubs using social media platforms*

Reference Furnished Upon Request