YOUR NAME

✉ *ADD EMAIL*   ⌨ *ADD GITHUB LINK*   📱 *ADD PHONE NUMBER*   in *ADD LINKEDIN LINK*

EDUCATION

The American University in Cairo   **Expected Graduation: June 2024**
BSc in Computer Engineering   *GPA: [INSERT GPA HERE]*

Coursework include: Mobile Applications Development, Fundamentals of Database Systems, Software Engineering, Computer Networks, Practical Machine Deep Learning, Computer Architecture, Graph Theory, Analysis & Design of Algorithms, Introduction to Game Design & Development

TECHNICAL SKILLS

- *Programming Languages:* C++ - Python - SQL - Verilog - Go
- *Tools/Libraries/Frameworks:* Git - Linux - Unity Engine - MATLAB - Tensorflow - Keras - HTML - CSS - Angular
- *Fields:* Object-Oriented Programming - Machine Learning - Deep Learning

WORK EXPERIENCE

Microsoft Advanced Technology Labs   **Cairo, Egypt**
Applied Scientist Intern   *July 2022– September 2022*

- Extracted **domain-specific** multilingual data by utilizing **pre-trained language models** and **GMM clustering**
- Reduced the computation time of the code base by **3.8%** by restructuring the code to a **multi-process producer-consumer** setup.

Orange Egypt   **Remote**
Intern   *June 2021*

- Utilized **SQL** and Microsoft Access to build a database.
- Suggested and programmed a Python function that transfers data from Excel sheets to the database.

TEACHING & RESEARCH EXPERIENCE

The American University in Cairo   **Remote**
Undergraduate Teaching Assistant   *June 2021 – June 2023*

- Assisted in **Computer Organization & Assembly Language course, Digital Design II & Computer Networks** courses.

The American University in Cairo   **Remote**
Undergraduate Research Assistant   *February 2021 – May 2022*

- Investigated and tested several clustering algorithms and recommended the most suitable for the project.
- Implemented Agglomerative Hierarchical Clustering algorithm using **Scipy** library and visualized
- Investigated solutions to the nonstationarity and partial observability of **multiagent deep reinforcement learning** (MADRL).

ACADEMIC PROJECTS

WedMaster Android Application   *Summer 2023*

- Developed an Android wedding planner application that connects customers and vendors using Android Studio and Java, inlcuding features like registration, different application interfaces for customers and vendors, and booking system.
- Design and implemented database using MySQL.
- Developed APIs using Node.JS for communication between frontend and database.

Digital Forensics Course Project   *Summer 2023*

- Conducted comprehensive digital forensic examination of a disk image using FTK and Autopsy.
- Uncovered critical information about the device owner's activities, intentions, and potential involvement in credit card fraud, substance abuse, and association with known criminals.

Database Application for Used Car Shopping   *Spring 2023*

- Designed and implemented a MySQL database system for a project focused on shopping for used cars in Egypt.
- Developed a web scraper to extract relevant information from online marketplaces and populate the database.
- Created a frontend desktop application with various functionalities, including user registration, marking cars as sold, adding reviews, and showing used cars market analytics.

Raft *Spring 2022*
- Implemented Raft consensus algorithm according to this paper with Go. *GitHub*

Spam Detector *Fall 2021*
- Researched different spam detection methods and experimented with LSTM and CNN models.
- Modified the models to integrate sentiment analysis.
- Concluded that the best model is LSTM integrated with sentiment analysis, as it beats the baseline, and wrote a research paper and a poster about the project. *GitHub*

RISC-V Processor *Fall 2021*
- Implemented with Verilog a pipelined processor with single-ported memory that supports RV32IMC instructions and handles hazards. *GitHub*

Bootloader *Spring 2021*
- Built with x86 assembly language a bootloader whose scope includes, but not limited to, building a virtual page table, mapping physical memory to virtual addresses, scanning PCI devices, identifying ATA disks, setting up PIT timer, etc. *GitHub*

Simple Search Engine *Fall 2020*
- Developed a search engine with C++ by constructing a Webgraph and implementing Google's PageRank *GitHub*

COMPETITIONS

Egyptian Collegiate Programming Contest (ECPC) *August 2023*
- Ranked **first-place** amongst teams from my university and qualified to the **Arab & African Collegiate Programming Contest (ACPC).**

Cairo's VR Empathy Hackathon *July 2023*
- Developed an interactive **VR** game that raises awareness on sustainable sources of energy and SDG 7.

DELL Technologies' C(4F)2 Hackathon 2021 – 21st place *March 2021*
- Programmed with Python a **reinforcement learning agent** which utilized **Double Deep Q-Network** to solve the given problem.

iGEM Competition 2020, AUC-EGYPT Team – silver-level medal *May 2020 - December 2020*
- Developed a game using **Unity Engine** to educate users on synthetic biology. *Game Link*

CERTIFICATES

Google IT Support Professional Certificate *May 2022*
- Topics: Computer Networking, System Administration, Operating Systems, and IT Security

EXTRACURRICULAR ACTIVITIES

Computer Science & Engineering Association
Internship Hunting Committee Chair *Fall 2023 - Present*
- Planned the year's goals and events.
- Oversaw the construction of the *internships' database*.

AUC Robotics Club
President *Fall 2022 - Spring 2023*
- Planned the year's technical tracks, projects, events, and competitions.
- Managed a club's annual budget, which includes cash flows, costs, and expenditures.
- Assembled teams to join **RoboCup** and **Minesweepers** competitions and provided them with resources and training.
- Launched **BB-8 project** to build a BB-8 droid.
- Received the **Outstanding Academic Club** and **International Outreach Award** that year by the Office of Student Life.

AUC Google Developers Student Club
Cloud Computing Chair *Fall 2021 - Spring 2022*
- Mentored a group of students in Cloud Computing and prepared them to educate and give workshops to students.

LANGUAGES

- *Native Language:* Arabic
- *Fluent:* English
- *Beginner:* French - German