

Karim Fathy

Computer Engineering Student

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EDUCATION

COMPUTER ENGINEERING BACHELOR AT GERMAN UNIVERSITY IN CAIRO

SEPTEMBER 2021 – PRESENT

- Relevant coursework: Data structure and Algorithms, Theory of computation, Computer architecture, Operating Systems, Databases.
- Current Grade: Very Good

IGCSE GRADUATE FROM AL BASHAER INTERNATIONAL SCHOOL

JUNE 2021

- O-Levels Achieved straight A* in all subjects.
- PURSUED A-LEVELS WITH A FOCUS ON MATHEMATICS AND COMPUTER SCIENCE.

COURSES, WORKSHOPS, INTERNSHIPS AND ACTIVITIES

• BACKEND ENGINEERING INTERN – MISR DIGITAL INNOVATION

August 2024 – September 2024

- Utilized Spring boot technologies and Java to develop and maintain backend systems for banking applications.
- Collaborated with a team to design RESTful APIs, ensuring secure and efficient data processing.

• FACIAL EMOTION RECOGNITION INTERNSHIP-GUC INTERNAL INTERNSHIP

April 2024 – June 2024

- successfully finished a 100-hour internship program.
- Developed an algorithm that data collects facial emotion scenes from Arabic TV shows .

• BIG DATA ANALYTICS - WE WINTER Training

Jan 2024 – Feb 2024

- successfully finished a 60-hour training program.
- successfully used technologies like pandas, matplotlib, and seaborn to manage and visualize big datasets with more than 100,000 rows in Python.
- completed 4 Power BI projects, obtaining hands-on expertise in the Power BI platform for data analysis .

• ECPC

August 2023

- The Egyptian Collegiate Programming Contest is a qualifying round for the Africa & Arab Collegiate Programming Championship (ACPC) which is a qualifying round for the International Collegiate Programming Contest.
- The competition demands high creativity and an understanding of data structures and algorithms.

UNIVERSITY PROJECTS

• [MINI DATA BASE ENGINE](#)

- Designed and implemented using java , its small data base engine where you can create table and manipulate data , we used the serialization, and the indices to make the use as efficient as possible.

• [DATABASE SYSTEM FOR ADVISING STUDENTS IN UNIVERSITY](#)

- Designed and implemented the SQL database structure from scratch, encompassing tables, stored procedures, views, and functions, facilitating seamless data management and retrieval for academic advising.
- Developed a range of stored procedures to automate essential tasks such as request handling, and status updates.

• [MULTILEVEL FEEDBACK QUEUE SCHEDULER](#)

- Developed a dynamic priority scheduler that adjusts process priorities based on execution behavior for balanced CPU time distribution.

• [LAST OF US THEMED GAME](#)

- Developed "The Last of Us: Legacy," a Java-based single-player survival game that follows object-oriented programming (OOP) guidelines for effective code organization and maintenance. JavaFX was utilized for GUI

• [DOUBLE McHarvard ARCHITECTURE PRCESSOR](#)

- Implemented a C-based simulator with fetch, decode, and execute stages, instruction set, and pipeline execution.

• [LABS SCHEDULING SYSTEM](#)

- Developed using the declarative programming paradigm (Prolog).

• [CHESS GAME](#)

- Created using the functional programming paradigm (Haskell).

ADDITIONAL INFORMATION

- Technical Skills: Object-Oriented Design, SOLID principles, Algorithm design and analysis, Data structures, Complexity Analysis, Machine Learning, Problem Solving.
- Programming Languages and frameworks: C/C++, Software Development, GUI Development, Backend Software development, .net, HTML/CSS, Python(Numpy, Matplotlib), Java, Git, SQL, JavaScript, C#, Django, Haskell, prolog, Assembly, react.js, docker, Spring.
- Aim: I'm a German university in Cairo student studying computer engineering. I have a solid academic background, a genuine passion for software development, and a desire to gain practical work experience.
- Languages: Arabic (Native), English (Fluent), German(A2), French (A1).