# Hassan Wael Ali Ahmed

COMPUTER SCIENCE ENGINEERING STUDENT

# Summary

As a fourth year Computer Science and Engineering student at the German University in Cairo, my objective is to further develop my skills and knowledge in the field by seeking challenging roles that will allow me to apply my technical expertise. I aim to contribute to the success of the company by leveraging my academic background and hands-on experience in programming, database management, and software development. I am driven to learn and grow in a dynamic work environment, where I can collaborate with a team of professionals and make valued contributions to the organization.



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### **Skills**

- Web Design
- Design Thinking
- Java
- Python
- Javascript
- Node JS
- MongoDB
- SQL
- Front End Coding
- Problem-Solving
- Network Management
- Computer Literacy
- Strong Communication

### Education

#### **SECONDARY SCHOOL**

Saint Fatina School IGCSE 2015 - 2020

#### BACHELOR OF COMPUTER ENGINEERING

German University in Cairo

2020 - Present

## Experience

#### **NETWORK OPERATIONS CENTER INTERN**

Huawei Egypt

2022 - 2022

Did a 1 month summer internship at the Networks Operations Center for the Etisalat project in Huawei Egypt where I did:

- Collaborated in building a pinging tool in Python for that automatically pings all the networks sites given in a credentials excel file and store the details of each ping result in another excel file for the networks engineer to review and act accordingly
- Black box testing of the new Huawei system before its deployment

In my internship I improved my team working skills when collaborating on the tool, Learnt all the fundamentals of black box testing and how the it is carried out.

### **Projects**

#### **DATABASE ENGINE**

• Created a database engine with octree indexing that can take SQL statements as input using Java.

#### SOFTWARE ENGINEERING BANKING SYSTEM

Designed and created a banking system in three milestones:

- Requirement Elicitation
- Designing ERD and Class diagrams implementing Design Patterns
- Design and development of a web application, incorporating user feedback and UX principles to create an intuitive and user-friendly interface for 3 different portals

### Projects (Cont'd)

#### **COMPUTER ARCHITECTURE**

 Created a Harvard architecture processor simulator that can fetch, decode and execute MIPS-32 instructions using Java

#### **OPERATING SYSTEM**

 Created an Operating System simulator that fetches, decodes and executes MIPS-32 instructions using pipelining ensuring mutual exclusion using mutexes for the critical resources

#### **BOOK LIBRARY WEBSITE**

 Created a Book Library website using Node JS with a MongoDB database and deployed it

#### **DIGITAL MEDIA**

 Created an image manipulation software using Java that can apply different kinds of filters to an input image

#### **DIGITAL SYSTEMS DESIGN**

 Created LZ compression/ decompression algorithm using VHDL

#### **DATABASE**

 Designed and created a large SQL database for football tournaments with its Front End

#### **MARVEL GAME**

 Created a Marvel themed Board Game with different classification of characters and abilities using JAVA with GUI using JavaFX

#### **PIANO**

 Created a piano simulator with python usingg the numpy library

#### **WORDLE**

• Created a wordle like game using prolog

#### AI MINESWEEPER

 Created a game in Haskell where a robot search for and collects mines in a grid of any desired size

#### **LOW PASS FILTER**

• Built a physical low pass frequency filter

### Extra-curricular activities

#### **RECYCLING**

I was a part of the 2020 award winning evergreen sfs recycling team

#### **CLUBS**

Warsha: Member of the Media & Marketing Comittee

Inspire: Member of the Editorial Comiittee

Insider: Member of the Design Comittee

## Language

English

Arabic

German