

Cairo, Egypt  
(+20)11 51299493

# Islam Wagih Emam

[islamwagihe@gmail.com](mailto:islamwagihe@gmail.com)  
<https://github.com/islamwagih>  
<https://www.linkedin.com/in/islamwagih/>

I am an enthusiastic computer science student interested in performance optimization and problem-solving using data structures and algorithms.

## Education

Third Year Computer Science student  
GPA: 3.49/4.00.

Cairo University

Sep 2019 – June 2023

## Programming Languages and Technologies

- Java, C++, Python, JavaScript
- MySQL, SQL server, Git, GitHub
- HTML, CSS, Spring boot, postman

## Selected Projects (for full list please visit GitHub)

- **Car Service:** a web API helps users communicate with car drivers to transport users to any area using java, sprint boot, postman, sqlite3.
- **Router Simulator:** a multithreading application that simulates connection between a router and several devices concurrently using java.
- **An Image Compressor Algorithm:** an images compression algorithm is developed to reduce images' size to less than its original size through building a vector quantizer from scratch using java.
- **CPU Scheduler Library:** a library contains 4 different CPU scheduling algorithms such as SJF, SJRF, FCFS and AGAT to distribute CPU power to processes using java.
- **CLI:** a command-line interpreter that supports commands like pwd, ls, rm, mkdir, cp, cd, cat and more using java.
- **Big Integer Library:** a library that performs arithmetic operations efficiently on long operands that can reach  $10^8$  digits using C++.
- **Linear Algebra Library:** a library that supports linear algebra functions such as matrix inversion and matrix multiplication using python.

## Awards and Self-Study

- **13<sup>th</sup> – place:** out of 100 teams at EPCP Qualifications in **2021**, for more info visit [ICPCID](#).
- **18<sup>th</sup> – place:** out of 100 teams at EPCP Qualifications in **2020**, for more info visit [ICPCID](#).
- Solved **1000+ problems** on various online judges on algorithms and data structures.
- Contributed to Problem Solving Training of FCAI ICPC Community for newcomers.

## Extracurricular and Volunteer Work

- **Java Instructor:** I am an instructor and coach for SCCI, a student activity branch at Cairo University.