# HOSSAMELDIN HAMZA

Undergrad Computer Engineer

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ICPC Profile
6th of October, Giza, Egypt

Proactive, reliable, and a fast learner. Strong academic performer and have secured and maintained a full scholarship to study computer engineering at Nile University. Possess high problem-solving skills and competitive problem solver. Worked on many web applications and Internet of Things projects. Keen to pursue a career in software engineering with a focus on back-end development.

## WORK EXPERIENCES

**Software Application Engineer Intern**                                     Valeo Cairo | Jul 2022 - Sep 2022

- **Developed a cross-platform desktop application using Electron.js to send well-structured new software release notification e-mails**
  - Developed a responsive GUI to ease data filling following MVC architecture pattern
  - Validated releases data filled by users and render HTML e-mail body with this data
  - Parsed the recipients' e-mails from a google sheet using Google APIs
  - Send the email with the rendered body from the app using the sender's email without the need to e-mail clients
  - **Technologies used:** HTML, CSS, JavaScript, Bootstrap, Nodejs, Electron.js

- **Extended a CLI version of the tool to be integrated with Jenkins to automate new release e-mails**
  - Added development and production loggers to monitor errors and emails sent from the CLI
  - Made a list of flags to configure all the details of the email body and the tool itself
  - Added the CLI to an **Alpine Docker container** to be deployed on the CI machine

- **Developed Python and Bash scripts to automate packaging and uploading the developed modules to the remote repository**
- **Used SSH to access a remote server and run the developed scripts**

**ICPC-NU Community | Competitive Programming Community**                    Nile University | Oct 2020 – Present

- Gave periodic sessions about Algorithms, problem solving, and improving code performance.
- Participated in designing the training road map of the community.

## PROJECTS

**University Schedule-Generator**                                            Open Source | Jan 2023

This is an API written in Node & Express to generate all possible schedules for the specified courses using backtracking algorithm.
**Technologies used:** TypeScript, Node, Express, Mysql, AWS (RDS, S3, Elastic Beanstalk), Docker, Circleci, MVC Architecture
**Python implementation of the algorithm**

**Smart Home**                                                              Open Source | Jan 2022

A full-stack web app that gives full control of all home lights, outlets, and appliances from any device connected to the internet.
**Technologies used:** HTML, CSS, JavaScript, Bootstrap, Node.js, Express, Mongo, Raspberry Pi, Python, Raspi-os, SSH, and Fritzing.

**Course Registration System**                                             Open Source | Jul 2021

A system written completely in c++ using graph theory. This system enables creating users, registering courses, showing the entire study plan that contains all the courses sorted in order.

**Yelp-Campground**                                                        Open Source | May 2021

A full-stack web application that provides the minimum functionalities of Yelp for campgrounds, where people can upload images and information about their places, look for a place, and leave reviews.
**Technologies used:** HTML, CSS, JavaScript, Bootstrap, Node.js, Express, Mongo, Cloudinary and MapBox.

## AWARDS & ACHIEVEMENTS

- Participated in ACPC (Africa and Arab Collegiate Programming Championship) 2022
  Ranked 63rd among Africa and Arab teams
- Participated in ECPC (Egyptian Collegiate Programming Championship)
  2022 - Second place among Nile university teams     2021 - Third place among Nile university teams
- Participated in ACPC (Africa and Arab Collegiate Programming Championship) Kick-off 2022
- Participated in Google Hash Code  2022 - 60th all over Egyptian teams
- First place in Undergrad Research Forum 2021

## EDUCATION

BSc in Computer Engineering

Nile University | Sep 2019 – Present
CGPA: 3.96

Award: Full scholarship at Nile University

## TECHNICAL SKILLS

**Programming languages**

C, C++, Java, Python, JavaScript, Bash Scripting, Assembly

**Programming paradigms & skills**

OOP, REST principle, Problem Solving, Algorithms, Data Structure

**Electronics**

Cadence, Proteus, Node-MCU, Raspberry Pi, Arduino, Verilog

**Web Technologies**

HTML, CSS, JS, Bootstrap, Node.js, express, Mongo, SQL, Docker, Nginx, Postman, Heroku

**Version Control**

Git/GitHub

## LANGUAGES

Arabic (Native)

English (Professional)

For website version visit:
https://hossamhamzahm.github.io