

Ramadan Ibrahim

SENIOR STUDENT

Cairo, Egypt

+20 1094921738 | ✉ ramadan.ibrahem98@eng-st.cu.edu.eg | 🏠 RamadanIbrahim98.github.io | 🌐 RamadanIbrahim98 | in ramadanibrahem

Education

Faculty of Engineering - Cairo University

SYSTEMS AND BIOMEDICAL ENGINEERING, GPA: 3.2/4.0

Senior Student

Training Experience

Entrepreneurship Training - InnovEgypt. 📌

TIEC - ITEDETA

- A Six-day intensive hands on training about the main principles of entrepreneurship

Clinical Engineering Internship

KASR AL-AINY MEDICAL SCHOOL

- A One-month internship about the role of biomedical engineer in the hospital
- Learned about the ICU, OR, Hemo-dialysis, Ventilators

Skills

📄 Programming Languages	Python, C, C++, Java, JavaScript
📚 Frameworks and Libraries	Flask, Numpy, Pandas, Matplotlib, PyQt5, Expressjs
🗄 Database	MySQL, MongoDB
🖨 Digital Type Settings	MS Office, \LaTeX , markdown
🐧 OS	Windows, Linux
💻 IDE & Environments	Vim, Visual Studio Code

Extra-Curricular Activity

One For All - The Second BEAT Conference

BEAT STUDENT ACTIVITY

- A Three-day event held at the Faculty of Engineering - Cairo University by BEAT Student Activity and the main sponsor was **siemens healthineers**.
- The Main Purpose of this event was to give the students a look at the bigger picture of the BME field and the different possible roles.

The 3rd BECEM

Biomedical Engineering Careers in the Egyptian Market

BEAT STUDENT ACTIVITY

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- This was the latest version of that event which focuses on the new technologies and updates in the field

Projects

Bio-Medical Image Compression. 📌

- A Command Line Application for Lossless Image Compression using Huffman Coding Algorithm
- Keywords: **C++**, **CMake**, **Compression**, **Huffman Coding**

Radiology Information System. 📌

- A Back-end Radiology Information System Application Using Flask
- Keywords: **Back-end**, **Database**, **Flask**, **SQLAlchemy**

Digital Filter Design 📌

- A Web Application for designing Digital Filters Using **Z-Transform**
- Keywords: **ECMAScript6**, **P5.js**, **Chart.js**

Multi-Channel Bio-Signal Viewer 📌

- A Multi-Channel Bio-Signal Viewer GUI Application Using Python's PyQt5, and it has the ability to export the signals as PDF
- Keywords: **GUI**, **Python**, **PyQt5**, **pyqtgraph**, **FPDF**, **Numpy**

Images Mixer 📌

- This is a PyQt5 GUI Application and An Application for the Fast Fourier Transform. Mixing the Magnitude and Phase of the Complex Domain of Two Images.
- Keywords: **FFT**, **Python**, **GUI**, **PyQt5**

Music Equalizer 📌

- This is a Sound Equalizer GUI App Using Python's PyQt5. It gives you the ability to play, pause, and Equalize any one-channel wav audio file
- Keywords: **GUI**, **Python**, **PyQt5**, **pyqtgraph**, **FPDF**, **Numpy**, **FFT**, **Librosa**

Fast Fourier 📌

- This is a console application implementing the **Fourier Transform** Algorithm and the **Fast Fourier Transform** Algorithm using C++ Language
- Keywords: **DFT**, **FFT**, **C++**

Trassembley 📌

- This is a Traffic Light System Using Assembly and 8051 MCU
- Keywords: **Assembly**, **MCU**, **8051**, **Proteus**

Cancerous Gene Expressions 📌

- A Python Program to detect the Correlation between cancerous and healthy data. And do some hypothesis testing on this data
- Keywords: **Python**, **Pandas**, **Numpy**, **Matplotlib**, **Scipy**, **Seaborn**

10th UGRF Special Edition: Egyptian Junior Researcher Competition. 📌

FINALIST TEAM IN THE ENGINEERING AND APPLIED SCIENCE RESEARCH TRACK

- Our Research paper's topic was: A Smart Shunt System as a treatment for Hydrocephalus
- Our Team was one of 15 teams filtered out of +500 different competitor teams for the finals.