


# SONDOS MAHMOUD

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## EDUCATION

-Bachelor's Degree in Systems and Biomedical Engineering, Cairo University  
Expected Graduation: 2025

## TECHNICAL SKILLS

- Desktop development: C++, python, C
- Web development: Html, Css, JavaScript, React
- Embedded systems development: Arduino,stm32,ATMega32
- Technical development: Vs code, GitHub, Matlab ,Pycharm, eclipse,PYQT, weka.
- Database development: SQL
- Simulation: Proteus
- knowledge about Calibration & Maintenance of Medical devices
- MS Office

## SOFT SKILLS

- Self Motivation
- Problem Solving
- Communication
- Teamwork
- Flexibility
- Ability to work under pressure
- Friendly
- Creativity

## EXTRACURRICULAR ACTIVITIES

- logistic member at TCCD

## PROJECTS

Medical Devices and Applications:

- Infusion Pump
- Hemodialysis
- Baby Incubator Device
- Designing Gas Flow Analyzer
- Hardware Circuit of Wheatstone Bridge
- Fourier Transform Mixer Application
- Security and Signal Processing Applications
- Security Voice Code Access Application
- Equalize Application
- Signal Viewer App
- Sampling Theory Studio
- Signal Acquisition and BCI

Software Development:

- Implementing Learning Management System in C++ Using QT Framework
- Designing Surgery Department Website
- Designing CardioMatic Clinic Website
- News Website with APIs
- calculator
- portfolio
- Product Mangement System

Computer Vision and Machine Learning:

- Filtering and Edge Detection
- Edge and Boundary Detection
- Harris Operator & SIFT
- Image Thresholding: Optimal Thresholding, Otsu, Spectral Thresholding, Local Thresholding
- Segmentation: K-means, Region Growing, Agglomerative, Mean Shift Methods
- Face Detection and Recognition: Color or Grayscale, PCA/Eigen Analysis
- Brain Tumor Segmentation with U-NET
- Breast Cancer Detection with Logistic Regression
- Binary Classification for Breast Cancer Model Using Naive Bayes Classifier from Scratch

## INTERNSHIP

- Training course in Al\_Asema hospital on medical equipment Calibration lab.
- Training course in Bahya hospital