OMAR ABDELZAHER

Systems and Biomedical Engineer (2016-2021)

@ omarzaher787@gmail.com ☎ (+20)1063204965 📍 Cairo, Egypt ○ github.com/OmarAbdelzaher
in linkedin.com/in/omar-abdelzaher-30239816b/

PROJECTS

- Graduation Project: Detection of Down Syndrome genetic disease using facial images in a web/mobile application **(Ionic-Vue)** which allows the access of mobile camera to take a photo or uploading images from gallery then the image is received by the backend server **(Django)** for the deep learning algorithm **(Python)** for image classification as Normal or Down case. **Project Grade: A**

- Database Field **(SQL)**: CMMS (Computerized Maintenance Management System) for hospitals using MySQL and Ampps

- DSP (Digital Signal Processing) Field **(Python)**: Signal Viewer - Equalizer - Image Mixer - Shazam like app (Sound Recognition) - Sound separator (Cocktail party problem) - Virtual Musical Instruments

- Graphics Field **(C++ - OpenGL)**:
  A Robot that can move, sit down, stand up, hold things in a scene. The scene consists of a floor (Texture Mapped) that we can change through a menu in addition to controlling the camera movement.

- Electronics Field:

  - Localization using WiFi signal from an ESP module displayed on a mobile application **(React Native)** and desktop application **(PYQT5)**
  - Self Driving Car using lines recognition in a mobile application **(React Native)** to access the camera and for remote control.

- Embedded Field **(C)**:

  - Phone book to save and retrieve user's name, email address and phone number following **MISRA** guidelines.
  - Temperature controller module using **ATmega32** micro-controller, TC72 sensor, LCD, keypad, ADC and SPI.

- Computer Vision Field **(Python)**:
  Image Processing Filters - Hybrid Images - Shapes and Lines Detection - Features Extraction and Matching - Face Detection and Recognition

EDUCATION

Bachelor's degree in Systems and Biomedical Engineering with overall grade:
Very Good
Cairo University
📅 Sep 2016 - Jul 2021

SKILLS

Technical Skills
- Programming Languages: Python, C, C++
- Web Technologies & Frameworks: Flask, Django, Nodejs, Vue, HTML, CSS, JS
- Database: SQL
- Mobile development: React Native - Ionic
- Software Architectures: OOP Concepts
- Documentation: Markdown, LaTeX
- GUI toolkit: QT Designer, PYQT5

Non-Technical Skills
- Communication and Presentation skills, Problem-Solving, Team Work, Self learning

EXPERIENCE & ACTIVITIES

Courses Member - Vice President - President
📅 Sep 2017-Jun 2020   📍 BEAT student activity

Organizer at First & Second BEAT Events
📅 Apr 2018-Mar 2019   📍 HTI - CUFE

Organizer at International Student Conference ISC'19
📅 Nov 2019   📍 CUFE