Mohamed Seyam

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🔗 Mohamed Seyam
⌨ Mohamed-Seyam

Education 🎓

📄 Graduated from **Faculty of Engineering | System and Biomedical** Engineering Department | **Cairo University** with a cumulative grade **(88%)**

📅 2018 – 2022   📍 Cairo, Egypt

Training 👔

👥 Maintenance and Clinical Engineering Intern | CASBIC

⊞ **Keywords**: MRI, Ventilator, Anesthesia, Incubators, Infusion Pumb, Operating Rooms, CT, CArm, ICU, Clinical Engineering

👥 Summer Internship | Alarabia for Lab Equipment

⊞ **Keywords**: Chemistry Analyser, Centrifuge, Blood Gas Analyzer, CBC Machine, ELISA, Autoclave.

Projects ⚙

🎵 Ai-Powered Toolkit for Automated Identification of Swallowing Kinematics in X-Ray Videofluoroscopy | GP | ▶

⊞ **Keywords**: Keras, Pytorch, Action Recognition, Object Tracking, Bolus segmentation, SSD, VGG-16, U-Net, Optical flow, GPU Acceleration

🎵 Chest X-Ray Medical Diagnosis with Deep Learning | ⌨

⊞ **Keywords**: Keras, Action Recognition, DenseNet, GradCAM, Data Generators, GPU Acceleration.

🎵 Brain Tumor Auto-Segmentation for Magnetic Resonance Imaging (MRI) | ⌨

⊞ **Keywords**: Tensorflow, Sub volume sampling, 3DU-Net, Image Registration, Batch Level Prediction.

🎵 Remote Real Time Medical Monitoring System | ⌨

⊞ **Keywords**: Python, NodeJs, Flutter, SQLite, ESP MCU, TM32, Heroku

🎵 Remote Real Time Indoor Localization System | ⌨

⊞ **Keywords**: Python, NodeJs, Flask, sklearn, Flutter, SQLite, ESP MCU.

🎵 Computer Vision Algorithms Toolkit | ⌨

⊞ **Keywords**: Python, filters, Canny, Hough Tranform, Thresholding, Histogram Equalization, Active Contour.

🚀 PGM Lossless image compression.| ⌨

⊞ **Keywords**: C++, CMake, Qt, Date Structures, Algorithms, Data Compression, Huffman

🔗 Analyze gene expression data for cancer type LUSC | ⌨

⊞ **Keywords**: Python, Numpy, Pandas, Matplotlib, Scipy

🔗 Object Animation & Texturing | Medical Visualization ⌨

⊞ **Keywords**: Object Animation, Texture Mapping, Lighting & Coloring, Loading DICOM Images, Surface Rendering, Ray Casting.

Skills & Technologies 💡

- **</> Programming:** [Python] [C/C++] [MATLAB/Octave] [8051 Assembly]
- **📝 Machine Learning/Deep Learning:** [scikit-learn] [PyTorch] [TensorFlow]
- **🖥 Computer Vision/Graphics:** [OpenCV] [OpenGL (C++)]
- **Ⓦ Web Development:** [Flask] [HTML]
- **🗄 Database:** [MySQL] [SQLAlchemy]
- **📝 IDEs:** [Jupyter Notebook] [VS code] [Sublime Text] [Visual Studio]
- **☰ Typesetting:** [LaTeX] [Markdown]
- **🔧 Development EcoSystem:** [Windows ⊞] [Linux(Ubuntu) 🐧]
- **Others:** [Git/Github ⌨] [Proteus]

Extra-Curricular Activity 🗂

The International Scientific and Engineering Innovation Competition (ISEIC) by IEEE.

📅 Mars 2022   📍 Faculty of Air defence
🏆 Ranked 1st on S/W Projects

Egyptian Junior Researcher Competition.

📅 Aug 2020   📍 Nile University
Poster | **Summary**
🏆 Finalist Team at Engineering and Applied Science Research Track.
⊞ **Keywords**: Hydrocephalus, Wireless Powering, Bio-compatible Materials, RF.

Siemens MRI, CT Molecular Imaging Workshop. 🔗

📅 Mar 2019   📍 Cairo University
Fundamentals of MRI and CT physics and working principle.

One For All || The Second BEAT Conference

📅 Mar 2019   📍 Cairo University
Biomedical Engineering different careers road maps, sessions about the newest technologies and techniques in the market.

Technical C++ instructor | Beat

Preparing material for the course introduces to engineering students from Cairo, Ain Shams and Helwan Universities.