

MOHAMED KHALED

Cairo, Egypt

+20-1113730850

mohamed.elbassiony00@eng-st.cu.edu.eg

Mohamed

MohamedElhadidy0019

MimixKiller

EDUCATION

Cairo University Faculty of Engineering

August 2018 – July 2023

BSc. Computer Engineering - **Accumulative Grade - 83%**

Cairo, Egypt

EXPERIENCE

FFmpeg

05 2022 – Present

Google Summer of Code Contributor

Remote

- Implementing new video filter in C++, accelerate these filters using CUDA and integrate them with FFMpeg framework.
- Accelerating and parallelising existing CPU video filters on the GPU using CUDA.

Sparks Foundation

08 2021 – 09 2022

Computer Vision Intern

Remote

- Cleansing, exploring, augmenting data-sets in order to use them for machine learning models.
- Implementing CNNs using TensorFlow.
- Making a complete program that detects and classifies different traffic signs.

PROJECTS

Vehicle Detection | OpenCV - NumPy - Scikit-learn

01 2022

- Vehicle detection from video using classical machine learning and image processing.
- Used SVM model to classify whether the object is a vehicle or not, used histogram of gradient and SIFT as features for the model to get trained on.
- Extracted regions of interest from the current frame by removing the background using a mixture of Gaussian model.
- The contour which get classified as a vehicle has a box drawn on it.

Python Machine Learning Algorithms | NumPy - Matplotlib

09 2021

- Implemented machine learning algorithms from scratch with python like:
 - Linear Regression
 - Logistic Regression
 - Support Vector Machine
 - K Nearest Neighbour
 - K means Clustering
 - Multi-Layer Neural Network with Back-propagation

Tumblr Android Clone | Kotlin Android Native - XML

01 2022

- Mocking the famous tumblr android app in OOP based Kotlin android native.
- Used Retrofit API to handle requests sent and received from the backend.
- Used complicated android views layouts as recycler view layout and constrained view layout.
- Unit and Integration testing for all the project.

TECHNICAL SKILLS

Languages: Python, Java, C, C++,SQL, Bash

Software Engineering Concepts: OOP, Data Structures, Algorithms, Problem Solving, Databases, GIT

Machine Deep Learning Tools: Tensorflow 2.0, OpenCV, Sklearn, Numpy, Pandas, Matplotlib.

EXTRACURRICULAR

Cairo University Racing Team

08 2020 – 08 2021

Low Voltage Sub-team Head

Cairo

- * Designed the Embedded System of the racing vehicle and selected its components
- * Simulated the embedded system of the vehicle and verified its functionality and compliancy with Formula Student rules.