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MAGDY HASAN

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EDUCATION

- Incomplete M.Sc in computer science, Cairo University, Aug2019-Aug2020
- Bachelor's Degree, Computer Science, Thebes University. GPA: 3.44

EMPLOYMENT

Junior Machine Learning Engineer **Aigorithm** **Nov 2020 – present**

- Working on two projects: First, detecting road damage, training different models, such as detecron2 and yolov5, using different datasets such as rdd and our labeld data and testing different pipeline for processing images such as segmenting road from image before prediction. Second, Classifying face skin problems such as acne. Using our collected data and SD-260 dataset. Using face segmentation models and classical approaches.

Computer Vision, Intern **Aigorithm** **Aug 2020 – Oct 2020**

- Worked on building a generic framework for parallelizing preprocessing and loading multiple datasets at once using **Python, TensorFlow-data and tensorpack**. Fine-tuning **yolov5** for custom datasets using **Pytorch,** Training on **AWS** using **COCO** and **OpenImages**, and building scripts for automating **AWS** usage using **Boto3**.

Computer Vision, Intern **DevisionX** **Jun 2018 – Aug 2018**

- A project to automatically verify ID information, I worked on developing models for segmentation and recognition of Arabic words using **TensorFlow**, and also did some backend development using **python Flask**

COURSES

- Deep Learning, a 5-course specialization by deeplearning.ai (Certificate).
- Machine Learning, a 4-course specialization by University of Washington (Certificate).
- Udacity Machine-Learning-Engineer-Nanodegree-Program (Certificate).

Projects

- Human-Action-Recognition (**Keras, Python**): Using ucf101 dataset, trained lstm/cnn models based on extracted features from pre-trained vgg16 and got 92% validation accuracy for 101 action categories .
- Custom object detection using yolo (**Keras, Python**): Trained a pre-trained yolo v2 on a kangroo dataset consist of 164 images only for 2000 epoch and got great result of detecting kangroo in new videos in real time
- Gender-Age predicition (**Keras, Python**): Given a face image, predict whether the person is male or female, Got a validation accuracy of 0.889 on Adience Benchmark dataset, Used a pretrained InceptionResNetV2 model, working on age predication using IMDB dataset
- Stores Future Sales Prediciton (**sklearn, Python**): Dataset from kaggle competition Predict Future Sales competition. Time-series task, task is to predict sales of next month, Did feature engineering, Added mean encoding features and lagged features, Used an ensemble of RandomForest, lightgbm, SGD
- Arabic Image Captioning (**Keras, Python**): Used Flickr8k_Dataset and used Bing translator for translating, Used Arabic word2vec (AraVec 2.0), result is not good because the bad translation
- Ecommerce website (**Java Spring, Angular**): Main functionality of ecommerce website using Spring as a backend, Angular as frontend and MongoDB for the database

COMPETITIVE PROGRAMMING

- ICPC: ECPC 2021 – 6th, ECPC 2019 – 37th, ECPC 2018 – 64th, ThebesAndElShoroukCPC 2018 – 1st, ACPC 2017 – 66th, ECPC 2015 – 3 problems Solved, ACM ECPCQ 2017 – 2nd
- Facebook Hacker Cup 2019 Round 2: 775th, Facebook Hacker Cup 2021 Round 2: 900th
- Codeforces Rating 1709, 1569 Problem Solved, Topcoder Rating 1535, 430 Problem Solved
- Judge at 4 ICPC Egypt locals 2019 and ICPC Egypt locals 2021

Skills

- Pytroch, TensorFlow, Keras, C++, Java, Spring, JSP & Servlets, , MySQL, NoSQL, MongoDB, Python, Linux, Angular, JavaScript, HTML, CSS, Algorithms, Data structure, Visual studio, Eclipse, Github

Interested In

- Deep learning, Computer vision, Machine Learning, Natural Language Processing, Artificial Intelligence, Web development, Distributed Systems, Operating systems, large scale projects, Programming competition.