Ziad Hussien Al-Amiir

Deep Learning Engineer, Computer Vision

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Cairo, Egypt

Experienced Deep Learning Engineer specializing in computer vision techniques applied to medical data. Certified TensorFlow Developer with a background in academic research.

Education

B.Sc. – Computer Engineering, Aswan University **(Very Good with honors rank – 79.57%) Sep. 2018 – Jul. 2023**
Graduation projects:

- **Web-Based System for Precision Agriculture Applications In 5G-Based Internet of Things – (Excellent – 100%) July. 2023** | To Project
  Developed a system that suggests the best crop to grow according to the sensor values with ML and looking at the crops while growing using fixed cameras to detect the diseases and take action to treat them. Also, the system connects the farmers with the lands 24 hours, giving them full control over open water, launch pesticides and other options. We Used DL, Arduino, Web-Based and Android in our Project.

Experience

Brain Tumor Segmentation with MRI images   **Aug. 2023 – Aug. 2024**
Freelance

- I joined as a deep learining researcher in a PhD research at Algeria
- We developed different models for brain tumor segmentation from images.
- U-Net and U-Net++ with other different architectures and different datasets were used to get the best performance.
- Constructing 3D models for Visualization and Segmentation.

Contact: CHAHBAR Fatma

Backend Developer Internship   **Jan. 2021 – Jan. 2023**
Aswan Healthcare (Magdy Yacoub) Foundation

- Using Sanic framework to develop a system for the foundation.
- Creating endpoints searching users by Medical Record Number.
- Organizing the system in modules pattern to make it expandable.

Projects

Driver Monitoring System – July. 2023
A graduation project developed a system for monitoring the drivers to avoid drowsiness by detecting his/her state while driving using IR camera and different cutting edges.

- I joined as a deep learning engineer on this graduation project. We used different CNNs, LSTM, and GRU models to detect the driver's state.
- We reduced our large dataset to be appropriate for our computational resources and used online training.
- We got high performance for the deployment of our models on different platforms, like the Jetson Nano and Android.
- We are currently working on a research paper that we hope to publish soon
- Used Python, Pandas, Tensorflow, Matplotlib, MediaPipe, Dlip, CV2 and TF Quantization.

Smart Parking System – Feb. 2023 | [To Project](#)
- The Smart Parking System was a project in our Interface college course.
- We used a Raspberry Pi with Pic and Arduino to detect cars existence on the gate and control entry and exit of the garage depending on sending signals between the components.
- The cars were assigned to the empty spots in the park automatically by using the ESP WiFi module.

Data Structure Visualizer – Mar.2022 | [To Project](#)
- Visualization of Data Structure and Algorithms performance using Java.
- We visualized different Data Structure and Algorithms for educational purposes.
- We shoed the difference in performance between the Data Structure and Algorithms.
- We used JavaFX for GUI

Skills

Key Technical Skills
Linux – Computer Vision – Data Visualization – Databases – Linux

Programming/Scripting Languages
C++ – Python – Bash – SQL – Java

Technologies
TensorFlow – Numpy – Pandas – Matploltlib – Seaborn –Sklearn — PostgreSQL — Git/GitHub — GCP

Activities

- **Google Developer Groups – Aswan**
  - ☐ Member and ML Instructor.
- **Google Developer Students Club at Aswan University (GDSC)**
  - Team Leader July. 2021 – July. 2022
  - ML Instructor July. 2020 – June. 2022

Certification

- **HCIA-AI (2020 - 2023)** | [To Certification](#)

- **TensorFlow Developer Certificate (02/2022)** | [To Certification](#)