CONTACTS

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gadm

Gad Mohamed Gad

computer engineering student

To pursue a successful career as a software engineer where I can demonstrate and improve my skills in a challenging environment. I'm particularly interested in computer vision applications and willing to explore new territory.

EDUCATION

BACHELOR | NILE UNIVERSITY 2017 - 2020

Major**: Computer Engineering** | CGPA until now: 3.84

with a merit-based full scholarship for academic performance

BACHELOR | MUST 2015 - 2017

Major: **Electronics and Communications Engineering**, CGPA: 3.95

SKILLS

- C++ (mainly), Python, C, and Java
- Solid understanding of deep learning, theory & practice. Mainly working with TensorFlow & Keras
- worked with advanced simulation tools like Cadence, Xilinx, and MATLAB
- Excellent command of English.

EXPERIENCE

Computer vision trainee at Vortex (Sept. 20- present)

- Vortex is the first Egyptian company specialized manufacturing remotely operated underwater vehicles (ROV) and autonomous underwater vehicles (AUV). The founding members are the 1st place winning team in the MATE international ROV competition.
- I've been selected for a 2-month training and assessment computer vision program after which I'll join the software department in the team participating in the RoboSub2021 AUV competition.

Intern at WINC, Nile university & ASRT (June. 20- Jul. 20)

- A joint research project for modeling Covid-19 spread then record and track cases safely. My duty was to design, implement, and document a multi-node blockchain architecture using RSA asymmetric encryption.

Intern at SiliconWaha (Feb. 2020- Apr. 2020)

- Working with a team of interns to develop a website for office reservation services to the company.

Junior teaching assistant, Nile university(Sept. 19- Jan. 20)

- In linear algebra course. My role was to work with the TA to supervise students' progress in the course project.

Intern at National Research Center (NRC) (Aug. 19- Sept. 19)

- Attended sessions at different research centers conducted by group members of AI, networking, DSP, and cloud computing at NRC, and nanotechnology labs at Electronics Research Institute (ERI).
- Participated in a project with a digital design group member for edge detection application on FBGA kit.

Participant at IBM blockchain development workshop (Feb. 19)

- worked with IBM engineers on a car agency management system using Hyperledger fabric framework.

Awards & Certificates

Awards

- Best Poster Award at the NRSC2020 conference (Sept. 2020)
- 3rd place in IT&CS track in the Egyptian junior researcher competition (Aug 2020)
- Blockchain Developer exploratory & mastery badges from IBM (Feb. 2019)
- 1st place in "Networking" course project in the Undergrad Research Forum
- Scientific Research Fundamentals camp certificate from NU (Aug. 2018)
- Electronics Research Institute Internship certificate (Aug 2019)

Published papers

G. Gad, A. Annaby, M. Saeed, NK. Negied, "real time lane instance segmentation using SegNet and image processing" in IEEE Novel Intelligent and Leading Emerging Sciences (II), 2020. (ongoing)

MOOCs

- Deep learning specialization
- TensorFlow in practice specialization
- AI for Medical Diagnosis
- Software Testing fundamentals
- Blockchain: foundation & use cases
- Introduction to Genomics technologies

Extracurricular activities

- Writer in Nu-Insider newspaper (university newspaper)
- Competed in ACM competitive programming competition and passed the qualifications phase to the ECPC.
- Competed in Google's Code Jam competitive programming competition and passed the qualifications phase.

PROJECTS & ACTIVITIES

Graduation project: Real-time Crash avoidance system using CV and AI :

- **GP1 –** implemented, tested, and presented perception algorithms: Lane detection, depth estimation, Traffic sign classification, and Car detection & tracking and control algorithms: Model predictive control (MPC).
- **GP2** – started with the objective of refining GP1 results by using deep-learning based methods and integrating results in an efficient pipeline. Many DL approaches were explored, YOLOv3 & LaneNet were used, and publishing "*real-time lane instance segmentation using SegNet and image processing*" is ongoing.

Other projects implemented throughout my study

- Server/client Machine Instruction Interpreter with CPP :
  - Following OOP concepts like abstraction, inheritance, polymorphism, and encapsulation
  - Used UML diagrams to demonstrate relation and communication between objects
  - Implemented features like multithreading, TCP socket connection, and affinity setting
- Implementing Face Recognition using PCA with python, OpenCV
- Designing ALU with different adder families (CLA, RCA) on Cadence Virtuoso
- Making a Sign language translator gloves : python, Arduino, MPU, Bluetooth

❖ **Projects description and code are available on my GitHub account**