Karim Tarek

01212288518
6th October-Haram City-street 31-apartment 29
https://www.linkedin.com/in/kareim-gazer-482a47152/
kareimtarek1972@gmail.com
https://github.com/KareimGazer

Education

Abdo Basha, Cairo **Ain Shams University** **Sept 2017 - June 2022**

- **Major**: Electrical Engineering BSc. Accumulated Grade: **Very Good**
- **Certificate (Minor):** Computer Engineering
- **Programming Coursework**: Software Engineering, Operating Systems, Data Structures and Algorithms, C++, Neural Networks, Compilers, Networks.
- **EE Coursework:** Computer Arch, Embedded Systems, Signal Processing, Control Systems, Logic Design, Circuits, Electronics

Certificates

- Udacity Web Development Advanced Nano-degree (Udacity)
- Software Design and Architecture specialization (Coursera)
- Data Structures and Algorithms specialization by HSE and UC San Diego (Coursera)

Experience

Software Engineering Intern **Master Micro** **Feb 2022 - Current**

Working on Master Micro's flagship project The Analog Designer's Toolbox (ADT) **the winner of Egypt's** ITIDA TIEC Round 28th StartIT Program, and also on the product's website https://adt.master-micro.com/

Autonomous Driving Image Processing using GPUs **Siemens** **Oct 2021 - Current**

Graduation Project Sponsored by Siemens in which we implement image stitching, lane detection, and traffic signs recognition using NVIDIA GPUS and CUDA APIs to achieve real-time performance via high-performance computing techniques.

AWS Machine Learning Foundation Nanodegree Program **AWS** **June 2021 - Oct 2021**

Learned ML pipeline, built and deployed ML models on AWS DeepLens (**computer vision**), DeepRacer (**Reinforcement Learning**), and DeepComposer (**GANs**). Learned software engineering best practices, and **OOP** with **python**.

FWD web Advanced Internship **ITIDA** **Aug-sept 2021**

built dynamic web apps and user interfaces like a Twitter clone and polls competition website, Used web APIs run NLP on websites, and learned React, Redux, and web pack.

Software Projects

GitHub Repo: https://github.com/KareimGazer

Classify-Cifar-100 https://github.com/KareimGazer/Classify-Cifar-100

Classifying the Cifar-100 dataset using two approaches: MCSVM shallow NN with PCA for feature extraction, and deep Conv-Nets. MCSVM achieved 17 percent accuracy vs 37 percent for conv-Nets after regularization.
Utilized: Tensorflow, scikit-learn, matplotlib, numpy, pandas.

Desmos-Desktop https://github.com/KareimGazer/Desmos-Desktop

Simple Prototype of **MATLAB** using **QT**. The user can write any equation of any degree and any variable names and it will be plotted with error handling. The application has my own implementation of a scanner and a parser.
Utilized: C/C++, QT, syntax trees, recursive descent, math, plotting, UI/UX, data structures, algorithms.

DES https://github.com/KareimGazer/DES

Optimized implementation of the Data Encryption Standard that runs in less than 5000 cpu cycles when optimized with level 3 and 20,000 cycles without optimization. the Implementation uses binary bitwise operations with 64 bits registers.
Utilized: C/C++, DES, low level programming.

NLP-with-MeaningCloud https://github.com/KareimGazer/NLP-with-MeaningCloud

A website that allows users to run NLP on articles and blogs, The backend uses MeaningCloud Sentiment Analysis API and runs using Nodejs and Express. This project was built using Webpack V5 and tested using Jest.
Utilized: NLP, APIs, NodeJs, Express, Webpack, Jest.

Would You Rather https://github.com/KareimGazer/would-you-rather

This is a Website where users can make new polls and other users can vote. Users can see the results only after submission. There is a leaderboard where the most helpful users are shown. This project is the final assessment project for Udacity's React-Redux course.
Utilized: React, Redux, NPM, Middleware.

Skills

- **Tools:** QT, Git, React, Redux, NodeJs, Jest, Webpack, NPM, Tensorflow, Linux.
- **Languages**: JavaScript, Python, C/C++, CUDA.
- **Concepts:** OOP, Data Structures and Algorithms,, Machine Learning, Neural Networks, Design Patterns, REST Arch, Databases (MySql), web services.