Omar Ahmed Elsayed

+201501179339 | omarahmed170@gmail.com | OmarCodes.me
linkedin.com/in/omarahmed-oa | github.com/OmarAhmed-A

Technical Skills

Languages: VHDL, C, CPP, Python, JavaScript, SQL, C#, Golang, Dart, Markdown, LaTeX
Developer Tools: Git, SSH, Linux, Google Cloud Platform, VS Code, Visual Studio
Libraries: SciKitLearn, pandas, NumPy, Matplotlib, TensorFlow: Keras

Projects

Experiments in DL and TL | *Python, TensorFlow:keras, Deep Learning, Transfer Learning* Nov 2022

- Created an 11 layer CNN to classify ASL hand signs.
- Augmented training images to increase variety and prevent overfitting.
- Generated news headlines using an LSTM model.
- Prepared ImageNet for transfer learning and Retrained ImageNet to detect the presence of a specific dog in a photograph.
- Fine-tuned hyperparameters to reach an accuracy of 97%.
- Retrained ImageNet to identify rotten fruits,Fine-tuned hyperparameters achieving 96% accuracy.

Finding Donors | *Python, ScikitLearn, pandas, Numpy, Matplotlib* Jul 2022

- Implemented and measured the performance of three supervised models
- Cleaned and prepared the data for Machine Learning
- Optimized final model using grid search reaching 87.04% accuracy

Portfolio website | *Node.js, JavaScript, GCP, NGINX, GitHub API* Jun 2022

- Developed a portfolio website using Node.js and JavaScript, building upon an open-source project
- Hosted the website on GitHub Pages and utilized GCP and NGINX for deployment and server management
- Integrated the GitHub API to automatically display my latest projects and repositories
- Used the project as an opportunity to expand my skills in web development
- Website accessible at OmarCodes.me

Run from Aast (Ray-Caster) | *C, OpenGL* Jan 2022

- Implemented Ray-casting and collision detection in OpenGL
- Added Sprites, enemy, sorting best time, saving scores

Education

Arab Academy for Science, Technology and Maritime Transport Cairo, Egypt
Bachelor of Science in Computer Engineering; Currently Achieved Ninty(90) Credit Hours *Sep. 2020 – May 2025*

NVIDIA Deep Learning Institute Online
Fundamentals of Deep Learning Certificate *November 2022*

Udacity Online
Machine Learning Cross-Skilling Nanodegree Certificate *Jul 2022 – Aug 2022*

Experience

Embedded electronics Team member Sep 2022 – Present
IEEE Aast Cairo Student Branch *Cairo, Egypt*

- Volunteered to help organise IEEE Explore a Worldwide programming competition held at Aast for the Egypt Section.
- Worked on research and development of a small maze-solving robot for micro-mouse competition.
- Developed a Python Teaching program for IEEE Women in Engineering (WIE) to teach Python to high school students.

Machine Learning Engineer March 2023
Dell Hacktrick Hackathon *Dell technologies, Cairo, Egypt*

- Collaborated with a team of six (DigitalSquad) to develop an intelligent agent for a maze problem using Deep Q-Networks algorithm.
- Implemented DQN algorithm in TensorFlow and PyTorch, and created a central repository for the code.
- Set up a cloud server on AWS EC2, and a Conda environment to reduce latency and ensure smooth code execution.
- Provided assistance on the algorithmic approach, and developed a translation layer for standard RL algorithms to work with the non standard competition environment.
- Ranked seventh out of 10 teams in the final phase, from 30 of 200 teams that signed up for phase one.
- Won the award for best spirit team, and gained valuable experience in machine learning, teamwork, and problem-solving.

Entrepreneurs Team Member Oct 2020 – Jan 2021
Enactus AAST *Cairo, Egypt*

- Collaborated with team members to achieve target results from the UN SDGs.
- Created research reports to document and communicate goals and accomplishments.
- Identified issues, analyzed information, and provided solutions to problems in biweekly meetings.