Ali Aboshady

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PROFILE

Computer engineer who's passionate about learning new technologies. Proven track record in game, web, and app development. Hands-on experience with machine learning, deep learning, and computer vision as well. Fast learner, focusing on learning software design patterns and test-driven development to improve code readability, scalability, and refactoring.

SKILLS

- **Programming Concepts:** Object Oriented Programming, Data Structures, Design Patterns
- **Software Development:** C, C++, C#, Python, Java
- **Game Development:** Unity, Unreal, ARFoundation, ARcore, Pygame
- **Version Control:** Git, Sourcetree
- **Artificial Intelligence:** Scikit-Learn, Keras, OpenCv
- **Web Development:** HTML, CSS, Javascript, PHP
- **App Development:** Dart, Flutter

EDUCATION

Master's in Data Science and Computational Intelligence (2020 - 2021)
Coventry University, Coventry, UK

Relevant Courses :

Big Data
Data Base Management
Statistics
Machine Learning
Deep Learning

Bachelor's in Computer Engineering (2014 - 2020)
Nile University, Cairo, Egypt

Relevant Courses :

Data Structures and Algorithmes
Digital Circuits and Systems
Linear Algebra
Software Engineering
Computer Architectures

EXPERIENCE

C++ Programmer
Inspired Entertainment (Nov 2021 - Present)

- Developed casino games using C++ along with an in-house game engine.
- Worked with other departments (art, design, production, test) to deliver high quality, graphically-rich games.
- Implemented solutions which conform to architectural design and market specification.

Game Programmer - Internship
Black Cat Entertainment (Feb 2021 - Nov 2021)

- Worked on a platformer game using Unity engine and C#.
- Designed software architecture and came up with solutions for implementation problems.
- Collaborated on ideas with the design team and built gameplay mechanics accordingly.
- Created animations and constructed their state logic.
- Managed Git repository and organized the team's branches.

PROJECTS

Self-Driving Car
Made an RC car that can detect the lane and centres itself in it. It also detects stop signs and its distance from the stop sign. The car stops when the sign's distance is less than 16 cm. A Raspberry Pi is used for the machine learning model, an Arduino is used for driving the motors, and a mounted camera is used as in input.

Neuroevolution Flappy Bird Game
Created a Flappy Bird game that uses Neuroevolution to teach the birds to play on their own. Neuroevolution is the combination of Genetic Algorithm and Neural Networks. At the first generation, the birds perform poorly, but as time goes on, they begin to improve. After about 40 generations, they perform better than a human and don't lose the game.

Human Action Recognition
Implemented a deep neural network model that takes in a video as an input, detects the human pose, transforms the frame pixels into bone and joint coordinates, and then classifies what type of action the person in the video is doing based on the pose shape in the sequence of time frames.

University Enrolment App
Built a Flutter application for graduated high school students that takes in their information, including grades, and recommends the suitable universities for them based on the specific requirements.

HOBBIES AND INTERESTS

- Did gymnastics for 10 years. Started at the age of 5, entered many competitions, and won multiple medals.
- Interested in team-based FPS video games like Counter Strike and Valorant.
- Played guitar for 3 years, as well as took vocal lessons.
- Fluent in English and Arabic.