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:** Phaser, Unity, Unreal, ARcore, Pygame, Online Multiplayer
- **Version Control:** Git, Sourcetree
- **Artificial Intelligence:** Scikit-Learn, Keras, OpenCv
- **Frontend Web Dev:** React JS, Next JS, Typescript
- **Frontend App Dev:** Dart, Flutter, React Native
- **Backend:** Node JS, Express JS
- **Database:** SQL Server

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

Consultant Associate - Developer Graduate Programme
InFor/Lighthouse Systems Ltd, Crawley, UK (July 2022 - Present)
- Worked on a shopfloor/MES platform.
- Create SQL queries and procedures insert and update data.
- Develop C# scripts to make grid reports.

C++ Programmer
Inspired Entertainment, Burton-on-Trent, UK (Nov 2021 - June 2022)
- 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.
- Converted games from one region to another such as Greek to UK, since every region has its own rules and design.
- Added new features to pre-made games.
- Debugged and fixed logical errors and bugs.
- Optimised games in terms of size and speed.

Game Programmer - Internship
Black Cat Entertainment, Leamington Spa, UK (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.

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.