Ali Al Temimi

JUNIOR SOFTWARE DEVELOPER

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Experience

Research Intern - University of Hull - Hull **(AUGUST 2022 - NOVEMBER 2022)**

KEY RESPONSIBILITIES:
- Design and develop custom Python software for our in-house-built hybrid 3D printer for printing electronic and plastic parts.
- Created and maintained development documentation to support ongoing software development post-internship.

KEY ACHIEVEMENTS:
- Expanded the initial project's scope by developing custom Python software for gcode manipulation.
- Drastically reduced preparation time for custom gcode files for conductive ink and plastic printing.

Junior Software Engineer - Global View Systems - Hull **(OCTOBER 2021 - MARCH 2022)**

KEY RESPONSIBILITIES:
- Designed, developed, and maintain responsive front-end features for key software using Blazor WebAssembly.
- Developed and optimized back-end solutions, including data migrations and schema design, using Entity Framework and .NET Core to enhance data management efficiency.

KEY ACHIEVEMENTS:
- Implemented a full-stack employee sign-in system for fire safety in the office. Including a dynamic backend to accommodate future hires and a front end using the Blazor UI framework MudBlazor.
- Rebuilt key features to improve user functionality by streamlining the key activity.

Education

University of Hull - MSc Research Masters in Physics (Nanoelectronics)

JANUARY 2023 - ONGOING
- Expanded the scope of the initial software tool created during my internship to include the creation of custom gcode.
- Developed a 2D line-by-line simulated gcode visualiser with the help of DearPyGui.
- Implement a feature set that enables seamless operation of the 3D printing, allowing the user to start printing and having the printer automatically print both ink and plastic with little user input or overhead.
- Conducted hands-on testing of the software with the printer including both conductive ink and plastic printing.
- Developed a feature enabling the integration of any gcode file with various infill settings for compatibility with our custom hybrid 3D printer.

University of Hull First-Class Honours - BSc Computer Science

SEPTEMBER 2018 - MAY 2021
- Advanced Programming - Developed a highly efficient Sudoku solver in C++ (93%)
- Artificial Intelligence - Developed Genetic Algorithm for an existing Neural Network in C# (72%)
- System Analysis, Design and Process - Group project to design and develop a piece of software and go through the whole software development process using the Agile methodology (71%)
- Agile Software Development - Developed a Forum website in a group using SCRUM and the Agile methodology (70%)
- Electronics and Interfacing - Developed an assortment of small software for an Arduino microcontroller (69%)
- Object-Oriented Programming - Created the game "Uno" in C# using object-oriented design and methedologies (60%)

Projects

EEG Controlled Prosthetic

Used Python to develop software that can control a 3D printed prosthetic by reading real-time brain data. The software mimics an EEG brain-reading device and outputs the data similarly to what an EEG device would. The other part of the software reads in the data with the help of Sockets; the software then processes it into a graph using Matplotlib.

Efficient Sudoku Solver

Used C++ to implement an algorithm to solve given Sudoku puzzles as efficiently as possible using the hidden single and naked single algorithm with the help of pointers to make it more efficient.

Skills

Programming Languages

C - C++ - C# - Python - JavaScript

Frameworks

.NET Core - Entity Framework - Blazor - React - Node.js

Tools

Blazor WebAssembly - Three.js - OpenGL - SFML - Git - Jira - jQuery - Bootstrap - Arduino - DearPyGui - Fusion 360 - Blender - Adobe CC - Ultimaker Cura

Languages

English - Arabic - Swedish