Aarham Haider

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PERSONAL PROJECT EXPERIENCE

"Ball Dodgers" 2D Mobile Game

Jun 2022 - Nov 2022

- Designed and developed a 2D mobile game in C# using Unity
- Implemented a user interface which allows the user to control the events of the game through the main menu and losing screen
- Modularized the program through the use of classes and individual script files to control world objects and processes
- Published "Ball Dodgers" to Itch.io for users to play for free

Type Tester

May 2022 - Aug 2022

- Developed a type tester in JavaScript, which calculates the user's words per minute and characters per minute while typing a random paragraph from a list
- Designed the Graphical User Interface using HTML and CSS, which functions in parallel to the backend structure, such as the timer display and the button functionality

ACADEMIC PROJECT EXPERIENCE

Command Line TSP Solver

Mar 2022 - Mar 2022

Introduction to Computing Science and Programming II, SFU

- Implemented a program in C++ that finds a deterministic solution to the Traveling Salesman Problem (TSP) using the Nearest Neighbor algorithm
- Utilized the vector data structure to store grid points and iterate through each point during the path distance calculations
- Developed C++ classes and header files to output the order of points and total distance of the deterministic shortest path
- Practiced strong debugging skills by creating unit tests and acknowledging edge cases
- Communicated code effectively through the use of descriptive comments to describe inputs, functionalities and outputs, and used clear variable names and conventional variable typing

EDUCATION

Simon Fraser University

Sep 2021 - Present, Burnaby BC

Bachelors of Applied
Science in Computing Science

Richmond Secondary School

Sep 2017 - May 2021, Richmond BC

 Participated in the International Baccalaureate
Diploma Programme

TECHNICAL SKILLS

Programming Languages

- Python
- C/C++
- C#
- HTML/CSS
- JavaScript

Operating Systems:

- Microsoft 7/8/10/11
- Apple macOS/iOS
- Linux/Ubuntu

Tools and Frameworks

- Unity
- · React/Node.js
- Microsoft Visual Studio
- Github

Databases and Spreadsheets

- Microsoft Excel
- · Microsoft Access

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ACADEMIC PROJECT EXPERIENCE (CONTINUED)

Interactive Image Editor

Nov 2021 - Dec 2021

Introduction to Computing Science and Programming I, SFU

- Devised an image editor with a GUI in Python with the use of the Pygame and Numpy libraries, which allowed the user to input and modify a selected image, as well as output the image with the modifications
- Implemented a simple computer vision feature that draws a box around a fish, given its color and hue values in a tuple
- Collaborated with two group members effectively by creating goal planners to complete features of the project throughout the development period
- Exercised effective code communication through the use of descriptive comments to explain the functionalities of methods and non-ambiguous variable names
- Practiced code and document interpretation by reading and understanding premade methods provided in the project package

NON-TECHNICAL WORK EXPERIENCE

Retail Sales Associate

May 2022 - Sep 2022

Winners - Richmond, BC

- Increased product sales and customer service by personally interacting with approximately 40 customers per day
- Processed customer payments using the store's POS system
- Handled and sorted approximately 300 store merchandise pieces during early morning shipment

Yard Worker

Mar 2020 - Apr 2021

Self-Employed - Richmond, BC

- Maintained front and back yards of client's house using various forms of yard maintenance equipment
- Provided customer service regularly by performing on call orders on a weekly basis

NON-TECHNICAL SKILLS

- Excellent verbal communication skills acquired when working as a Sales Associate
- Descriptive written communication skills demonstrated by my comment writing in both personal and academic projects
- Strong attention to detail which I gained while developing a 3D Action Game in Unity
- Team building and leadership qualities acquired when leading a team to develop the Interactive Image Modifying Program

PERSONAL INTERESTS

- 2D and 3D video game development
- Playing and watching Basketball
- Playing the piano
- Painting

AWARDS

• Outstanding Performance in IB Mathematics AA HL