Eimaan Ashraf

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Technical Skills

Languages: Python, C++, C, Visual Basic, HTML/CSS, Javascript
Technologies: Visual Studio, .NET Framework, Eclipse, Pycharm, Git/Github, Arduino

Projects

Connect4 Bot | *Python, Discord.py, Pygame, Google Cloud Console*
- Developed a bot using **Python** and the **Discord.py API** to allow users to play connect4 against an AI or a player
- Utilized **Pygame** library to create a dynamic **GUI** and to create the algorithms for the game
- Devised an efficient **artificial intelligence** system using the mini-max algorithm to find most optimal route
- Hosted the bot on **Google cloud compute engine** to allow the bot to run remotely 24/7
- Surveyed and gained **80%** satisfaction amongst the users of the bot

Etch-A-Sketch | *HTML/CSS, Javascript* | github.com/aeimaan/etch-a-sketch
- Created a visually appealing web page using **HTML/CSS** that allows user to play etch-a-sketch
- Developed dynamic on the web page using **Javascript** by creating buttons which allow user to change the size of brush or to clear the board
- Allowed for user interaction by tracking mouse movement to produce a drawing shown on the screen

GeeseSpotter | *C++, Eclipse* | github.com/aeimaan/GeeseSpotter
- Developed a console application using **C++** which allows the user to play Minesweeper
- Implemented user input using dynamic memory to allow for game parameters to be set at run time
- Programmed method for user to interact with the board using bit manipulation allowing them to mark/reveal squares
- Ensured good memory management by making efficient use of the pre-allocated memory

Battle Simulator | *Python* | github.com/aeimaan/RPG
- Developed a RPG battle game using **Python** which allows player to lead a party of 3 hero's and fight monsters
- Incorporated **object-oriented programming** and data structures while adhearing to good Python style guidelines to allow for efficiency while coding
- Developed multiple attack spells, heal spells and items with varying costs to create a more dynamic feeling game

Experience

UoFT Robotics Hackathon   **February 2020**
Programmer   *Toronto, Ontario*
- Lead a 5-man team to **2nd** place for a robotics competition by creating a remote-controlled car using **arduino** and **C**
- Utilized 4 motors and a Bluetooth Module to set up Serial Communication allowing the buggy to be remote controlled and perform tasks such as retrieving objects
- Developed collision detection and collision prevention using ultrasonic sensors which allowed for more efficient driving

A Little One Studio   **July 2019 – August 2019**
Photo Editor   *Toronto, Ontario*
- Captured and enhanced images based on a clients' specifications using softwares such Adobe Photoshop and Lightroom.
- Achieved an **95%** in client satisfaction by creating high quality pictures in a short period of time.
- Reduced the photo editing time by **10%** by efficiently working under pressure.
- Demonstrated initiative by self-learning photo editing softwares in under 1 week.

Education

University of Waterloo   **September 2020 - May 2025**
Candidate for Bachelor of Applied Science in Computer Engineering   *Waterloo, Ontario*