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Profile

Computer Science graduate from Rutgers University with a passion for Game and Software Development looking to enter the field.

Education

Rutgers University, New Brunswick, NJ

Bachelor of Arts in **Computer Science**

Relevant Coursework:

- Software Methodology: OOP, GUI, Testing and Debugging
- Internet Technology: HTTP, E-Mail, Video Streaming
- Design of Algorithms: Analysis of Algorithms, Search/Sorting, Graph Problems

Personal Projects

Blue Is Bright - Turn Based Roleplaying Game (C# / Unity)

Made for the 1-Bit Game Jam using Unity and C# during a 7 day time period.

- Implemented state machines to handle transitions between the different battle system states.
- Created custom fragment shaders to provide the game its unique 1-bit visual aesthetic that can dynamically switch between colors.
- Used object inheritance to easily extend base classes.

Board Bot - Discord Bot (Python)

A board game Discord bot written in Python using the discord.py and pycord libraries.

- Event listeners were used to respond whenever a command appeared in chat and for the different game inputs.
- Used asyncio to communicate with the asynchronous Discord API.
- Managed the memory of different data structures to prevent memory leaks for when a user's game goes on for too long.

Rogue-Lite 2D Platformer - Godot Game (GDScript)

2D Platformer with procedurally generated levels made using the Godot game engine.

- Utilized composition to reuse existing code and to easily implement existing features into new scenarios.
- Wrote a custom vertex shader to create environmental wind swaying effects.
- Unique procedurally generated levels with destructible terrain.

Coffee Making / Shoot 'Em Up - Unity Game (C# / Unity)

2D Top-down Game made using the Unity game engine and C#.

- Used OOP to organize various object types and their components
- A Singleton design pattern was utilized to handle aspects such as audio, the camera, and player input.
- Code optimization to handle hundreds of bullets simultaneously.

School Projects

University Management Page (HTML / mySQL):

Created an offline site allowing students and administrators to log in and manage coursework using mySQL

- Practiced making readable code and commenting to allow my project partner to easily understand my code
- Used different queries to sort and filter the different sets of students, administrators, and courses to show

Café Application (Java / Android Studio):

Android application allows the user to place and remove orders from a database for customizable items

- Implemented a GUI that is able to work for multiple different phone resolutions and aspect ratios
- Sorting algorithms such as quicksort to display the correct order for the different items

Technical Skills

Languages:

- Java, Javascript, C, C#, C++, Python, SQL, HTML, MATLAB

Tools:

- Git, Android Studio, Unity, Godot