Rohan Shetty

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Skills/Knowledge

Languages: C#, C++, C, JavaScript, TypeScript, Python, HTML/CSS

Technologies: Unity, WPF, Express, Node.js, Flask, MongoDB, Bootstrap

Experience

Game Programmer — Eden Industries   May 2022 - August 2022

- **Designed and implemented new features** for creature-collecting RPG "Nights of the Djinn" using **homegrown C++ game engine**, including battle item mechanics and NPC behaviour
- **Revised and refined** code to meet employer standards and worked with colleagues/fellow co-op students to create **modular** scripts
- Independently created a puzzle minigame within Nights of the Djinn using the **Agile** development cycle to continuously improve, test and deploy code
- Continuously optimized code to lower memory usage by up to **20%,** allowing scenes with over **2000** game objects to run at **60fps**.

Logistics Organizer — JAMHacks V   Fall 2020 - Summer 2021

- Built relations with sponsors to obtain funding for Waterloo's **largest high school hackathon**
- Collaborated with fellow organizers to set up the judging system for over 200 attendees
- **Operated and maintained** a Minecraft server for over 50 players
- Wrote **custom Java plugins** for games and administration

Key Projects

Tuesday Night Tempo

- Developed a **Unity** rhythm game that can be played with an acoustic drumset
- Designed and wrote an algorithm to convert Drum MIDI files to in-game indicators
- Allows any standard synthesizer file to be played and tracked
- **Winner of Hack the North 2021**

Samir's Pizza Delivery

- Developed a co-op multiplayer game with **Unity** where two players must collaborate to deliver pizzas
- Used Unity's **Relay** system for multiplayer to implement **low latency network communication** with **packet loss-protected** camera interpolation and automatic code generation for lobbies
- Rendered the game environment with real-world building heightmap data using the **Mapbox API**

Garbage Wrangler

- Built a **Unity** game to encourage the player to clean up garbage in an ocean ecosystem
- Implemented **procedural generation** with Perlin noise to create a unique environment
- Designed a unique control system for a submarine-like vehicle with **3-axis rotational movement** and smart **linear camera interpolation**
- **Winner of Best Oceans Hack** - Hack the Earth 2021

Wallpaper Wizard

- Independently developed a **C# WPF** desktop tool to change the user's wallpaper based on the weather and time of day
- Released **consistent updates** and communicated with users to implement new features and improve existing ones
- Over **2200 downloads** since launch

Education

- Candidate for Bachelor of Software Engineering, University of Waterloo, Waterloo, ON | 2021-2026
- Recipient of **$4000 B.P. Dammizio Entrance Scholarship**, awarded to outstanding applicants
- **Relevant Courses:** Programming Principles (C), Data Abstraction and Implementation (C++), Foundations of Sequential Programs (C++, Assembly)