Ryan Hasman

✉ ryan@ryanhasman.com 📱 778 683 7936 🔗 https://www.linkedin.com/in/ryanhasman/ 🌐 https://ryanhasman.com

EXPERIENCE

Jr. Game Developer, Codename Entertainment   **Sept 2025 - Dec 2025**
- Developed and optimized new gameplay features in Unity and C# within Codename's flagship title Idle Champions.

Software Engineer, Arista Networks   **May 2024 - Aug 2024**
- Implemented network switch monitoring features within Arista's proprietary operating system using C++ and Python.
- Automated testing procedures to mitigate future conflicts.

Game and Audio Programmer, Offworld Industries   **May 2023 - Dec 2023**
- Designed and implemented gameplay and audio features in C++, Unreal Engine 5, and MetaSounds on flagship titles.
- Led the audio team as the sole audio programmer, innovating sound and music systems that dynamically respond to gameplay events, enhancing immersion.
- Planned the audio implementation architecture for new features.

PERSONAL PROJECTS

Entity Component System Game Engine   **2024-Present**
- Built an Entity-Component System game engine from scratch in Python.
- Implemented a custom physics system with quad tree spatial partitioning, and support for A* pathfinding.
- Implemented a networking system that supports Entity Replication, Networked Variables, RPCs and more.
- GitHub: https://github.com/AncientEntity/MedusaEngine

Spider Slingers - Published Video Game (Platformer)   **2021-Present**
- Created a multiplayer platformer within Unity/C#, utilizing the Steamworks SDK for integration with Steam.
- Wrote a custom networking solution, supporting up to 255 connected players at once in a single lobby.
- Published to Steam: https://store.steampowered.com/app/1952780/Spider_Slingers/

Epocria - Published Video Game (Survival)   **2018-2024**
- Programmed a procedurally generated survival game with infinite worlds, developed using Unity/C#.
- Wrote a custom multiplayer networking system with TCP/UDP sockets.
- Implemented infinite worlds with procedural generation.
- Published to Steam: https://store.steampowered.com/app/1313340/Epocria

Chip-8 Architecture Emulator   **2022-2023**
- Originally programmed in Python 3, then reprogrammed in C++ with SDL2.
- Completely emulated the Chip-8 architecture's 35 opcodes.
- Validated the emulator's behaviour using programs designed to test for emulation accuracy.
- GitHub: https://github.com/AncientEntity/Chip8Emulator/

Custom Multiplayer Networking System   **2020-2023**
- Using TCP/UDP sockets I developed a custom networking solution for the Unity game engine called Entity Networking Systems, programmed in C#.
- Supports: Object/Variable Replication, RPCs, Packet Buffering, and more.
- GitHub: https://github.com/AncientEntity/EntityNetworkingSystems

SKILLS

Programming Languages: C/C++, C#, Python 2/3, Java, Lua, MIPS32 Assembly, VHDL, Ruby, Racket, SML, GLSL, JS
Version Control: Git, GitHub, Perforce, Swarm
Workflow: Agile Development, Jira, Trello, Rider, PyCharm, Visual Studios, Vivado
Game Related: Unity, Unreal Engine 4/5, Godot, Vulkan, OpenGL, WebGL, Steamworks SDK, Tiled, Pygame, MetaSounds
Other: Linux, CentOS, Ubuntu, Bash, Emulation, VirtualBox, OOP, Functional Programming, FPGA, ANTLR4
Hobbies: Bouldering, Gaming, Game Development, Baking Bread, Snowboarding, and Hiking.

EDUCATION

UNIVERSITY OF VICTORIA Sept 2021 - August 2026 (Expected)
Bachelor of Science, Computer Science