Benjamin Gelinas

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EDUCATION

Bachelor of Science - Worcester Polytechnic Institute   **Worcester, Massachusetts**
Double Major: Computer Science and Interactive Media & Game Development   **August 2020 – May 2024**
GPA: 3.87/4.0, Honors with High Distinction
Related Courses: Object-Oriented Analysis & Design, Algorithms, Web Development
Operating Systems, Human-Computer Interaction, Computer Graphics, Technical Game Development I & II

SKILLS

Languages: C, C++, C#, Java, Python, JavaScript, TypeScript, HTML, CSS
Frameworks / Libraries: React, Node.js, Express.js, Tailwind, Bootstrap, WebGL, pandas, NumPy, Unity, Unreal Engine
Tools: Git/GitHub, Jira, Visual Studio, VSCode, JetBrains IDEs, JUnit, Playwright, MongoDB

WORK EXPERIENCE

Student Assistant | Worcester Polytechnic Institute   **January 2024 - March 2024**
- Held office hours for IMGD 3000: Technical Game Development I where 50+ students could meet to discuss course projects
- Handpicked by professor due to prior proficiency in the subject area
- Troubleshooted student issues with course projects and development environments
- Hosted information sessions during the beginning of the course to help students set up development environments
- Graded and provided feedback on short-answer questions on quizzes upon request of the instructor

Intern | MassDiGi   **September 2023 - January 2024**
- Collaborated with a cross-functional team of 10 to continue development on an existing mobile game and its codebase
- Implemented new features such as a new interface layout, new UI popup controls, and themed content updates
- Refactored existing codebase and resolved issues involving gameplay mechanics, front-end appearance, and save data
- Integrated over 30 new art assets into the game, which resulted in improved graphics quality and a 10% performance increase
- Reviewed pull requests to ensure only high-quality code entered the codebase
- Created builds for major updates and deployed them to the Apple and Google Play Stores for over 100 consumers to play

Online Pickup Clerk | Stop and Shop Supermarket Company   **June 2022 - August 2023**
- Shopped, organized, and stored grocery orders, paying attention to detail to ensure customer satisfaction
- Delivered orders to customer vehicles upon arrival at the store
- Answered customer inquiries about their orders, acknowledging item substitution requests depending on item availability
- Assisted in front-end duties outside of my job description when needed

PROJECTS

Programmer & Data Analyst | *Color Clash*   **September 2023 - April 2024**
- Researched and implemented a modification to a latency compensation technique, Time Delay, for online shooter games
- Designed and built a 3D multiplayer first-person shooter game, *Color Clash*, in Unity and C# to create and test our algorithm
- Built interfaces in-game to automate our playtesting sessions and data collection, reducing unnecessary waiting time by 20%
- Cleaned and analyzed data using Python's Pandas and Matplotlib libraries to draw conclusions about our algorithm modification
- Findings found that the algorithm reduced perceived latency by 30% and increased fairness by 50% for 150ms of latency
- Published our full research process, procedures, and findings into a research report, which can be found on the WPI library site
- Received the "Excellence in Research" award from WPI's Interactive Media & Game Development department faculty

Gameplay & Website Programmer / The Great Escape   **March 2023 - May 2023**
- Worked on a cross-functional team of 6 developers to create a stealth mission game in Unreal Engine 5 using Blueprints
- Created core gameplay mechanics such as object interactions, gameplay progression events, and a reusable dialogue system
- Integrated high resolution art assets into the engine to create a visually engaging experience
- Improved gameplay and graphical quality by collecting and analyzing user feedback from an alpha playtesting session
- Built and hosted a simple single page website using React and GitHub pages to display information about the game

Programmer | *2D Game Engine*   **January 2023 - March 2023**
- Built a 2D game engine from the ground up using C++ and Visual Studio
- Designed a framework to build 2D games, including event handlers, object managers, logging, and a sprite file definition
- Supports audio and ASCII art graphics using the SFML library