ANDREW RUDASICS

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Summary of Qualifications

- Programming Languages (C/C++, C#, Python, GLSL, JavaScript, HTML, CSS, SQL)
- Tools and Frameworks (OpenGL, Unity, Vulkan, WebGL, ImGUI, Node.js, Blender, Maya, Substance Designer)
- Project Management (Git, Jira, Confluence, Agile, Trello)
- Platforms (Windows, Linux, Oculus Quest, Oculus Rift, Windows Mixed Reality, iOS)

Education

Master of Science in Computer Science — DigiPen Institute of Technology, Redmond, WA   *04/2023*
- Concentration in Graphics and C++ Game Programming

Bachelor of Science in Computer Science — University of Washington, Seattle WA   *03/2020*
- Focus on programming for Virtual Reality and Animation

Relevant Experience

Game Developer — University of Washington, Seattle, WA   *09/2020–08/2021*
- Designed novel game mechanics in Unity to allow the player to embody an octopus in VR while effectively communicating story
- Managed team of interdisciplinary students with agile methods to iterate on prototypes of virtual reality game in part-time capacity

Software Engineer — Microsoft, Redmond, WA (Remote)   *05/2021–07/2021*
- Built remote collaboration prototype application using WPF and C# for internal user study on improving virtual meeting engagement
- Implemented REST API server and web interface using Node.js and HTML/CSS to manage meeting participants
- Created and automated a meeting content authoring tool with Unity, decreasing the time to create new meeting configurations

Software Engineer — Teleportal, Manhattan Beach, CA (Remote)   *11/2020–01/2021*
- Created a dynamic runtime avatar loading system with animation for networked AR user interactions
- Implemented C# tools to automate asset packaging for Teleportal SDK compatibility

Teaching Assistant — University of Washington, Seattle, WA   *09/2018–06/2020*
- Led a team of 12 students on three separate year-long virtual reality game and film projects
- Automated animation and lighting effects with C# tools to increase ease-of-use for student productions
- Created effective written tutorials to convey technical information to student groups of programmers, artists, and designers

Projects

Engine Programmer, Producer — Drifty Thrifty Bang Bang   *09/2022–04/2023*
- Implemented renderer in C++ and OpenGL with a flexible materials system for fast iteration of shader development
- Automated art exports to custom engine formats by developing python tools to interface with content creation software

Graphics Programmer — C++/OpenGL Renderer   *09/2021–04/2022*
- Utilized deferred rendering to increase the quality and performance of lighting in the scene
- Improved realism by adding real-time reflection and image-based environment lighting with high dynamic range support
- Implemented shadow cascades to increase resolution and quality of shadows for interactive viewing

Game Programmer, Producer — Lights Out   *01/2022–04/2022*
- Led a team of four programmers as scrum master to create a puzzle platformer from scratch using C++/OpenGL in 3 months
- Implemented a physics-based character animation system for controlling character movement

Game Programmer — Stranded In Space   *01/2020–03/2020*
- Developed a zero-gravity puzzle platformer game and published it to itch.io and Newgrounds with student team
- Designed and tested paper prototypes to ensure comfortable UI/UX and refine game mechanics prior to development
- Utilized player data from Newgrounds and itch.io through Haxe Logging API to refine iteration and boost player retention by 50%