# Brayden **Tremper**

*Corvallis, OR*

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## Education

### Oregon State University

*Sep. 2017 to Jun. 2021*

Applied Computer Science in Game and Simulation Programming — *Corvallis, OR*

3.70 GPA

***Relevant Coursework :*** *Object-Oriented Programming, Artificial Intelligence, Computer Graphics, Graphics Shaders, Parallel Programming, Information Visualization, Virtual and Augmented Reality, Mobile Development, Cloud Application Development, Vector Calculus, Physics, Engineering Graphics and 3D Modeling*

## Work Experience

### Software Engineer Intern

*Jun. 2020 to Aug. 2020*

Space Dwarves Entertainment — *Remote*

- Assisted in the development of the upcoming game, Border Moons Online, using Unity3D and C#
- Created an extensive talent tree system using OOP with varying traits for all characters in the game
- Aided in the implementation of a complete combat system allowing for a variety of interactions within the game
- Attended weekly meetings to discuss progress and communicate ideas with other teams

### Graphic Designer

*Oct. 2014 to Jun. 2020*

Freelance — *Remote*

- Designed a broad range of graphical products for varying clients
- Created products consisting of 3D mock-ups, animations, apparel, logos, rebranding's, and advertisements

### Engineering Intern

*Sep. 2016 to Jun. 2017*

Digital Harvest — *Pendleton, OR*

- Aided in the development of ROVR, a remotely operated virtual reality vehicle to aid in crop harvest
- Assisted in the implementation of VR interaction for the ROVR allowing for a mechanical arm to be operated virtually to harvest grape clusters
- Implemented real-time image processing for the ROVR allowing for video to be communicated back to the VR headset

## Skills

### Computer Science

**Languages :** C, C++, C#, GLSL, Python, Java, Javascript, Prolog, Perl, Scheme

**Environments :** Linux, Android Studio, Visual Studio, Atom, OpenGL

### Game Development

**Game Engines :** Unity3D, Unreal Engines

**Environments :** Virtual Reality, 3D, 2D

## Projects

### Undead Blade

Individual

- Created a virtual reality game using Unity3D for the Oculus Quest focusing on VR immersion to explore the limits of melee combat
- Implemented an interactable active ragdoll that is propelled by forces and mimics humanoid animation
- Developed a VR stabbing mechanic allowing for simulated mesh stabbing through the use of configurable joints

### Dance of Warriors

Team Capstone Project

- Assisted in the development of a 3D game using Unity3D to explore the relationship between music and gameplay
- Developed an algorithm to analyze a songs given beat per minute and separate it into respective keynotes 1 through 4
- Created a game environment which responds to the songs beats by intensifying lighting at a variety of desired keynotes
- Implemented a complete health system capable of tracking specific limb health, taking damage, and healing