# Unity Vs Unreal Engine Research

## Looks

We don't have many resources at our disposal, so we are not attempting to make a good-looking game. However, Unreal seems to be the better option of the two with a natural volumetric lighting system as well as a lot of lighting focuses and shader graphics that while available in Unity, are a lot less accessible to smaller teams. This is true for both engines however as we are such a small team. Overall, this does not matter.

#### **Assets Available**

Unity has the asset store and a wide variety of online resources out there for teaching; however, this is not the case with Unreal. Sure, there are resources out there for Unreal but many of them are not beginner friendly and have a steep learning curve. An easy choice in this category being Unity.

# Language Comparison

Unity uses C# while Unreal uses C++. Our team are primarily Java developers and as such, C# appeals to us for its similar grammar and ease of us for Java programmers. A major difference is that C# does not have pointers like C++ however we will not need to use them, so an obvious choice in this category is to use C# and therefore Unity.

## UI

The User Interface for both is similar to begin with but functionality is greater with Unity as well as our group having had some experience with it will mean we need less training for people to get used to it. Even if we did not have familiarity, Unreal Engine is somewhat unappealing in look and it is not easy to navigate.

# **Overall**

Looking at the above reasoning, we have decide to use Unity as it will be much easier for a small team with our current experiences of both engines to take the one we are both familiar with and is much more catered to small time developers.

# References

- [1] A. Šmíd, "Comparison of unity and unreal engine," Czech Technical University in Prague, 2017.
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- [3] "Creative Bloq," Future Publishing Limited, 04 02 2019. [Online]. Available: https://www.creativebloq.com/advice/unity-vs-unreal-engine-which-game-engine-is-for-you. [Accessed 13 09 2019].