



Use Cases for Immersive Technology in the Space Sector

This project has had its primary focal point in learning more about the space sector and its issues, and how Virtual Reality and Augmented Reality could be utilised to solve those issues

The Process

This project started with researching the different companies that operate in the UK space sector, and the different areas of expertise within that sector. Throughout the first 4 weeks of the project, I have had contact with:

- Rocket Breaks, a space tourism company looking into orbital and sub-orbital experiences
- Enterprise M3, a business collective with multiple points of interest
- In-Space missions, who focus on delivering 'space as a service' by helping companies launch satellites into space
- UK Space Agency
- South West Centre of Excellence in Satellite Applications

The Information

Thanks to my contacts within the businesses mentioned above, I have learnt the following:

- Manned space exploration is being focused on primarily now, with lunar exploration to begin with.
- There are plans of opening a space hotel in orbit.
- There is an interest in utilising satellite data to simulate scenarios here on Earth.

The Problem

Additionally, I learnt more about CubeSats and their low bar of entry. These CubeSats have a relatively low cost compared to larger-scale satellites, and are easily built by professionals in the space sector, as well as university students and general companies. One problem with CubeSats is that they are only relatively cheaper than a standard satellite, but they are still a lot more expensive than what your average consumer would use. I decided my project would help leviate this in some form.



The Project

In virtual reality, an approximation of reality can be achieved to an incredible extent. By utilising virtual reality, the user can prototype a full CubeSat and get a read on the data present in the satellite itself (e.g. weight, dimensions relative to a 1U CubeSat). The components themselves would have a specific task or property connected to it that could in a short summary describe to the user what the CubeSat would do.