Three.js Research

# What is Three.js?

Three.js is a cross-browser JavaScript library and application programming interface (API) used to create and display animated 3D computer graphics in a web browser using WebGL. The source code is hosted in a repository on [GitHub](https://github.com/mrdoob/three.js/).

Three.js allows the creation of graphical processing unit (GPU)-accelerated 3D animations using the JavaScript language as part of a website without relying on proprietary browser plugins. This is possible due to the advent of WebGL, a low-level graphics API created specifically for the web. High-level libraries such as Three.js or GLGE, SceneJS, PhiloGL, and many more make it possible to author complex 3D computer animations for display in the browser without the effort required for a traditional standalone application or a plugin.

# Why did I want to use it?

I wanted to use Three.js due to the fact that it can easily make web pages look very high effort and visually pleasing.

I intended to have 3D pages, where thumbnails of videos would float through different environments (ex: Space, Forest, Mountains, etc)

# Research

## Available product analysis

I have analyzed the products that already exist, which can be found [here](https://threejs.org/). From my investigation I have found out that Three.js is mostly used for the following:

* Games
* Visual experiences
* Storytelling
* Experiment visualization
* Concert/Festival marketing

## Prototyping

I have prototyped a first version, and I have found out why not many websites use Three.js or anything similar – processing power.

Three.js is an extremely taxing library, as JavaScript is not adept at loading 3D models.

The prototype was unsuccessful.

## Community research

Since my prototype was unsuccessful, I have started looking at the coding community of the library, and this only enforced my first opinion of the library.

Most of the Three.js users agree that the library is very hard to optimize, and special 3D models need to be made to not slow down the page.

# Conclusion

I will not use Three.js in my Individual project. I might give it a go if there is still time left.