Project Proposal
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Cart 353
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Concept:

A responsive 3D graphic for a personal/portfolio website made with Three.js and WebGL.

Learning Goals:

Experiment with web development, learn how to incorporate 3D into web, learn the basics of OpenGL, create exciting personal webpage animations that showcase the essence of my personal aesthetic and create a dynamic web experience

Project Scope:

The web animations are the largest part of this project. The development of the rest of a portfolio website will be handled in Cart 444

Minimum Viable Product:

a 3D web animation that works on web and can be interfaced with a website built using web templates or coded from scratch.

-3D object can be sourced from creative commons
-object can be wireframe as long as it fits with the web aesthetic
-Object does needs to have an animation and some basic playability related to the mouse, clicks.

Second Iteration:

3D web animation built into the full functionality of the website. Each segment of the site will have the animation present in some shape or theme.
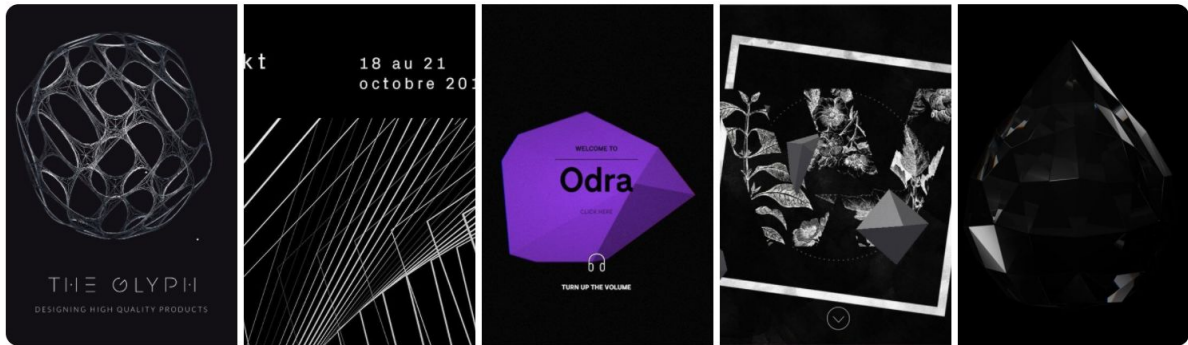
- (secondary animation) The edges of the 3D object will animate on each menu change, moving across the screen to become underlines for menus.
-object can have textures and reflection
-object has more involved interactivity, can rotate left, right

Similar Works By Other Artists

Websites With 3D Loading Graphics

Link To Pinterest Board of Websites:
https://www.pinterest.ca/celestepimm/website-inspiration/3d-web-inspiration/

(from left)
http://www.theglyph.studio/#home
https://nordik.org/
https://odra.city/alaussae
http://www.wearewanaka.com/
http://resn.co.nz/

Virtual Self http://virtualself.co/

Colour & Type Inspiration

Technical Approach:

Based off of my current best guess, this project will most easily and successfully executed using Three.js and OpenGL. My lack of previous experience in web development as well as 3D will require a significant learning curve during the execution of this project. For this reason I am not currently set on any particular computational models and will need to take an exploratory approach to building this project for the first development phase.

Short Term Technical Strategy

Phase 1:
-introductory videos to three.js
-experimentation with web templates and research regarding compatibility of 3D with various platforms
-testing by getting 3D shapes running and animating movement (rotation) in web using premade 3D creative commons objects

Phase 2:
-introductory videos to WebGL
-experimentation with changing/ animating wireframes, having the shape animate
-research regarding texturing and lighting

Phase 3:
-research animating the edges of shape into part of website
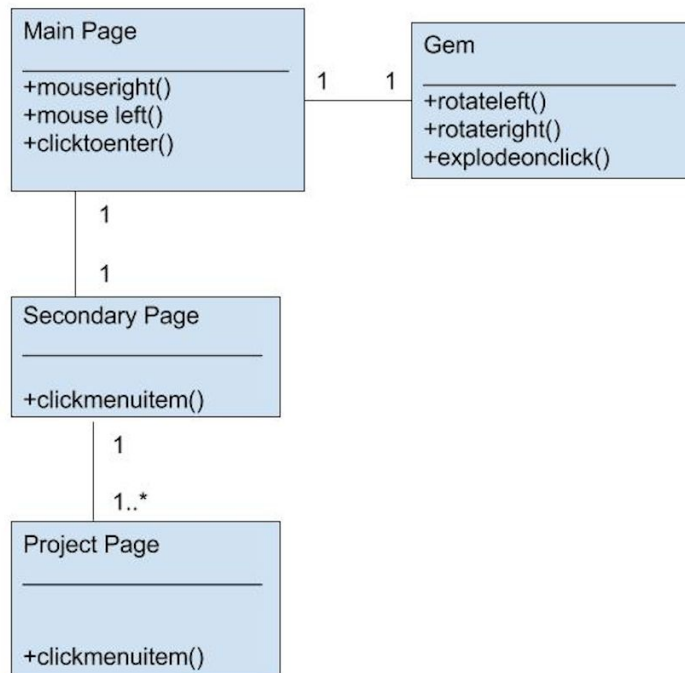-streamlining design and adding features

Three.JS Tutorial
https://tutorialzine.com/2013/09/20-impressive-examples-for-learning-webgl-with-three-js

WebGL
https://webglfundamentals.org/

UML Diagram

Main Page
_____
+mouseright()
+mouse left()
+clicktoenter()

Gem
_____
+rotateleft()
+rotateright()
+explodeonclick()

1   1

1

1

Secondary Page
_____

+clickmenuitem()

1

1..*

Project Page
_____

+clickmenuitem()

Other Links

3D in processing:
https://forum.processing.org/two/discussion/20251/has-anyone-managed-to-successfully-load-and-display-textured-obj-models-using-android-processing

Three.js Forum:
https://discourse.threejs.org/

Languages :
-Javascript
-WebGL
-Three.js
-P5.js
-CSS3d