CS 460 Introduction

Unmitkumar Patel
unmitkumar.patel001@umb.edu
University of Massachusetts Boston
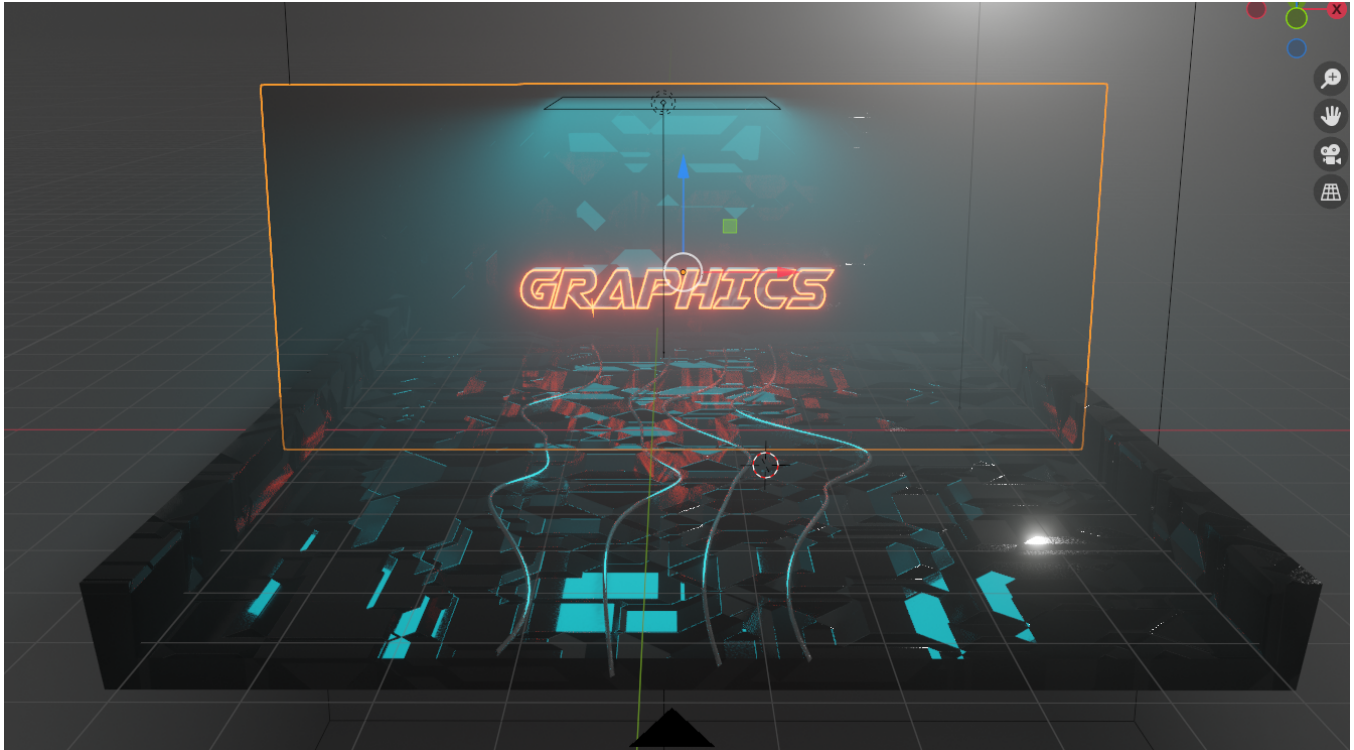
Figure 1: Image on the project.

ABSTRACT

This project is about creating graphics for new CS460 Intro. I have
used Blender to create the animation. I have used text feature in
Blender to create the text and other geometric tools and lighting to
create the effect. I have use camera in the software to close up to
the text.

KEYWORDS

Blender, Eevee

1 INTRODUCTION

An Introduction is important to give an appeal or attract people to
try a certain thing. By gathering knowledge from CS460 - Graphics
class, it is a wonderful course to take in college. This motivated me
to create an animation of Graphics introduction. As I have used
Blender software to create this animation. It uses Eevee as rendering
engine which is backed up by OpenGL. This whole project is created
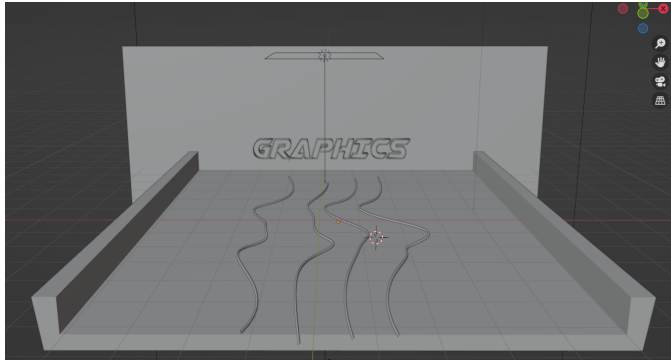by me as I was a only person into this project.

2 RELATED WORK

There is no such related work to this project.

3 METHOD

It was a great experience to use a new software.

3.1 Implementation

3.2 Milestones

3.2.1 Milestone 1. Creating Design: I created a sample design of the idea and set a design of how my animation would look. As shown in the image there is a text implemented. A background wall and a 3D floor underneath all. The wires are given random shapes. I was highly impressed by features of Blender and how it gives real touch to the objects. So, I decided to create my project completely by using blender.

3.2.2 Milestone 2. Design implementation: I tried to give it a classy underground lights texture and vibe. As I have created this animation in Blender software. It was my first time using it. It was really difficult to navigate required tools and commands. I had to google my obstacle and get ideas how to tackle it.

3.2.3 Milestone 3. Font: I downloaded the font of the "Graphics" from https://www.dafont.com/theme.php?cat=303. During the process of building the project I constantly reviewed my work and what I could improve on. I added the lighting boundary to the text.

3.2.4 Milestone 4. Constructing floor, background and light: I have given the floor and background metallic effect and pieces popping out. So that light could pop out and can reflect through the object. I adjusted a light right above the text emitting blue color to give more volume and focus to the text. I raised the height of the floor and raised it's boundary to give a 3D effect.

3.2.5 Milestone 5. Wires: I have added wires on the group. The wires are actually cylinder, but I have used subdivide feature to break down each wire and give it curves.

3.2.6 Milestone 6. Audio: I have also added audio to the animation when camera moves forward. I got the audio from the internet.

3.3 Challenges

- Challenge 1: My first idea for this project was to create a background using blender and animated text using Three.js and WebGL. I successfully created the animated text, but unfortunately I could not find a way to add blender background to my code. I was impressed with the features of Blender, so I decided to completely do my project in Blender.
- Challenge 2: Blender is very hard and complex software to use. I had to google my difficulty to overcome it and it was time consuming.

Table 1: Some example table

Device	Performance
iPhone	60 FPS
Android	60 FPS
Old Macbook	10 FPS

4 RESULTS

The very first image is the wide angle view of the animation flooring. The yellow frame is highlighted background.

The second image is the camera angle view of the animation. The camera moves forward as you play the animation.

The third image is the prototype or skeleton of the final project.

Please press "z" button on the keyboard and select rendered to see the effect and textures added. To shift to the camera view please press "0" in the numeric keyboard. https://unmitkpatel.github.io/cs460student/intro_text.blend

5 CONCLUSIONS

All in all, it was a fun project to do. I got to gain lot of knowledge about Blender, it's features and how it work. I am satisfied with my project. Yes, I could have improved some parts of it as there is always scope for improvement.

REFERENCES