National University of Engineering

Simón Bolívar University Campus

Knowledge Area Of Information and Communication Technology

Subject: Graphic Programming

Final project

Members: Rugama Castillo Halley Daili

Ordóñez Baldelomar Ana Sofía

Acuña Matus Eliezer Jose

Salguera Garcia Benjamin Ali

Carnet: 2022-0285U

2022-0298U

2022-0380U

2022-0258U

Group: 3T2-CO

Docent: Ing. Danny Oswaldo Chávez Miranda

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I. OBJECTIVES

1.1 General Objective

Develop virtual spaces that offer people the opportunity to escape the daily problems and anxiety caused by urban life, allowing them to relax, rejuvenate and reconnect with nature in a calm and serene environment.

1.2 Specific Objective

Create a unique virtual experience that transports the user to a tranquil "NatureNook" in the heart of a lush forest, where they can escape the stress and bustle of modern life and immerse themselves in the tranquility and beauty of nature through the animal sounds.

II. Introduction

In a world increasingly dominated by technology and the fast pace of urban life, many people experience high levels of stress and anxiety. Constant exposure to electronic devices and the constant noise of the city contribute to a feeling of disconnection from nature and make it difficult to find moments of calm and tranquility. There is a growing need for virtual spaces that allow people to escape this hectic reality and find refuge in natural environments, where they can relax, rejuvenate and reconnect with their surroundings.

III. *Development*

We are developing a forest simulation that seeks to offer a realistic experience for users. The project includes ambient lighting and 8D sounds to create an immersive atmosphere, as well as a day and night cycle that allows you to see the forest at different times of the day. We have also integrated a weather system with rain and a variety of animals with realistic animations. To improve user interaction, we have developed an interface that allows you to set the state of the day, adjust the sound volume, and change the weather from rainy to clear. All of this is designed to immerse the user in a virtual natural environment that is as realistic as possible.

IV. Conclusion

In conclusion, our forest simulation project not only offers a realistic experience by using advanced technologies such as ambient lighting, 8D sound, and day and night cycles, but also addresses a fundamental need in modern society. With a dynamic weather system, detailed animal animations, and a customizable user interface, we offer people a space where they can relax, rejuvenate, and reconnect with nature, thus mitigating the effects of the fast pace of life.

V. References

http://www.pygame.org/docs/ref/rect.html

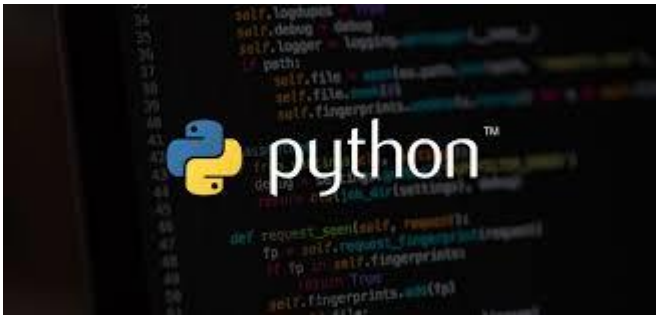
https://youtu.be/2iyx8_elcYg?si=JY2gZjVAZthuFIJ_

https://www.youtube.com/watch?v=rvfiePG1iKY

https://github.com/StanislavPetrovV/3D-Graphics-Engine

VI. APPLICATIONS

BLENDER



PYTHON