Project: Safari360

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Firstly, our project is considered a No-code project because it ‘s not yet developed. We are currently under the research phase, putting together all necessary resources to start development. Here is what our project will look like:

I. Problem Statement:

The abundant and varied wildlife and ecosystems of Africa, in most cases, remain inaccessible because of financial, logistical, or geographical problems. Most of them cannot view the splendor and magnificence of African wildlife as a potential precursor in raising awareness and commitment towards its preservation. There is also an increasing divide between technology and nature in terms of not enough opportunities for people to learn about the importance of such ecosystems to human existence.

II. Solution:

Safari360 provides a fully immersive Virtual Reality tour deep into Africa's diverse ecosystems, from forests to savannas, mountains, lakes and so on. It exposes them to some iconic wildlife in the forms of gorillas, elephants, antelopes and others. It was enabled by Unity3D and tried with a range of VR headsets to have a far more realistic and interactive safari experience in Safari360. Virtual tours like these really let users go inside their natural habitats and understand animal behaviors, with great talkovers over ecosystem conservation. By fusing amazing visuals, realistic behaviors of animals, and educative elements, Safari360 connects the gap between nature and technology.

III. Impact:

Safari360 is how the world experiences the virtual view of African wildlife and ecosystems, democratizing some of the most striking natural wonders.

The users feel that this is their most favorite immersive experience in virtual safaris since it provides high resource value in the behavior of the wildlife and conservation of the environment. This will go a long way in serving educational purposes in schools for educational purposes, and conservation organizations raise awareness of the urgent need to protect these ecosystems. Safari360 foments active empathy with nature, thus encouraging users to support efforts taken toward conservation.

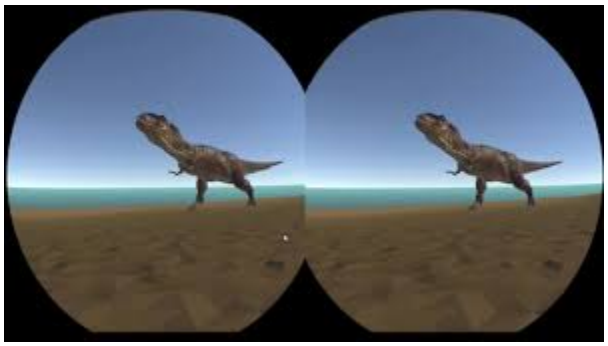
IV. Social Good:

Safari360 answers multiple pivotal needs: it increases awareness for the conservation and protection of the environment arguably through the most entertaining, accessible medium. It enhances environmental education, acquaints people with wildlife who may never set foot in Africa, and it allows for an entertaining means to learn about the importance of conservation in a fun and immersive way, enabling larger objectives of biodiversity conservation and protection of endangered species for future generations.

V. SAFARI360 Prototype (Still under development):



Img 1: Zebra in animal game: 3D Design



Img 2: Dinosaur Safari : VR View



Img 3: Expected view of Elephants on Safari360



Img 4: Smooth navigation

Other features:

1. Educational Content:

- Incorporated narration, via audio and visual cues, that educates users on each animal, its environment, and the importance of conservation.
- Created optional pop-up texts or voiceovers when a user spends time near a specific animal or location.

VI. Technologies being used:

- Unity3D: for 3D modeling and VR integration
- Google VR SDK: For supporting mobile VR experiences
- Oculus SDK or SteamVR: For enabling VR functionality.
- Unity Terrain Tools: To create large, detailed ecosystems such as forests, savannas, and mountains.
- FMOD or Wwise: To manage complex audio systems in Unity. To create dynamic soundscapes (e.g., animal sounds, wind, ambient environment noises).
- 3D Spatial Audio: For realistic sound localization based on the user's position, heightening the immersive experience.
- Google Firebase: For storing user data, progress, or settings, and implementing cloud-based features like user profiles or multiplayer.
- Photon Unity Networking (PUN): For adding multiplayer features like virtual group tours, where users can experience Safari360 together.
- Unity Analytics: To track user behavior, such as which animals they interact with most or which environments are most engaging.
- React Native + Unity WebGL: This will be used to offer web or mobile versions.

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