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III SEMESTER – MCA461P Minor Project

Virtual Reality Exploration of Visual Challenges

Introduction:

The purpose of this initiative is to close the empathy gap for those who experience visual impairments, with an emphasis on conditions including glaucoma, diabetic retinopathy, cataracts, and retinitis pigmentus. Traditional methods frequently fail to adequately portray the day-to-day challenges that these people encounter. As such, we suggest creating a Virtual Reality (VR) experience that accurately imitates the visual effects related to these circumstances. Project aims to promote empathy and help create a more inclusive society by allowing users to immerse themselves in the environment as viewed by someone with these limitations.

Within the field of visual impairment, where obstacles still exist and progress is vital, the research arises in response to the unfulfilled demand for a thorough understanding. With the use of virtual reality technology and the highly regarded Unity Engine, we will produce realistic visual simulations that replicate the impaired vision associated with each ailment. The initiative is important because it has the ability to offer a fresh viewpoint on the difficulties experienced by those who are visually impaired, which will promote compassion and understanding.

Upon completion of this project, the application incorporates various modules, each designed to contribute to an intuitive user interface. This interface empowers users to navigate and personalize their virtual reality experience. By enabling users to see the world through the eyes of those with glaucoma, diabetic retinopathy, cataracts, and retinitis pigmentosa, the application fosters empathy and a deeper understanding of the challenges faced by individuals with visual impairments

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Guide Signature