LOW VISION SIMULATION AND TOOLS

IMLEX

GOAL

The project aims to simulate low-vision conditions within a Mixed Reality environment and develop computer vision-based assistance tools to enhance the wearer's visual perception.

HOW?

First, you will use WebXR and complex shaders to simulate low-vision glasses; then, you will implement strategies to assist headset users by utilizing the device's camera.

RESEARCH TOPICS ASSOCIATED

COMPUTER GRAPHICS

- 2D/3D/XR Data visualization

COMPUTER VISION

- VLM
- 3D reconstruction
- Distance estimation
- Etc.

AVAILABLE EQUIPMENT'S

- Quest 3, Vision Pro
- Workstations

GO FURTHER

Could more sophisticated low-vision models be implemented?