Team Turtle

GesturePilot Slides

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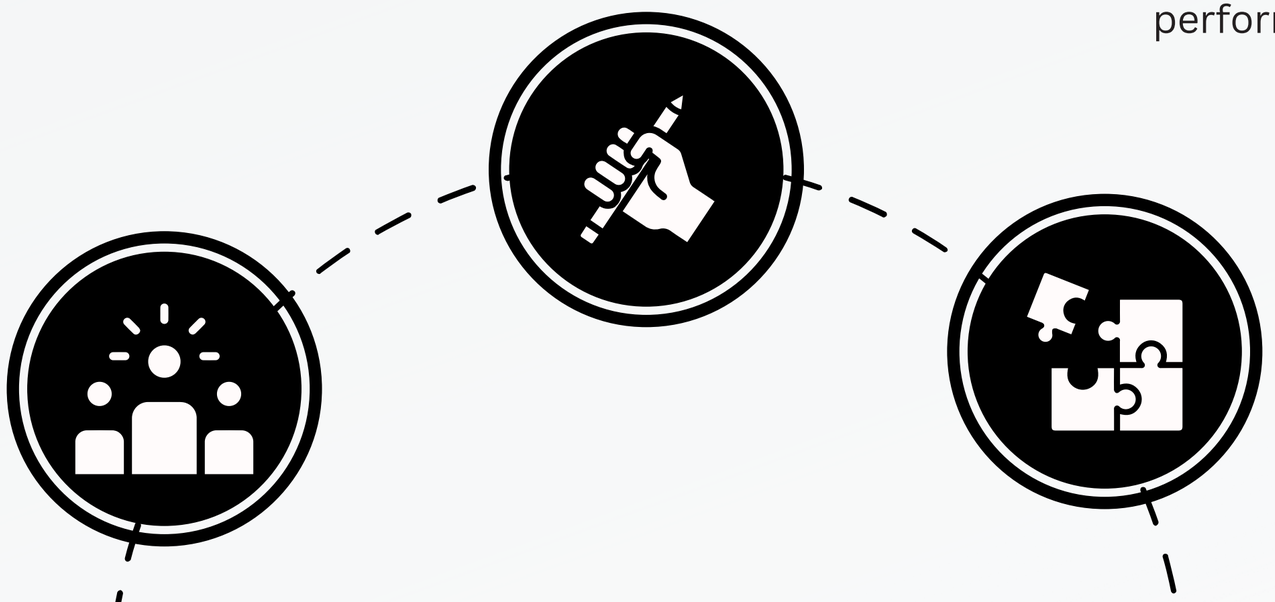
GOALS

Goal n° 1

Develop a gesture-based presentation control system, eliminating the need for a mouse or touchpad, and leveraging intuitive hand gestures for efficient slide interaction.

Goal n° 2

Add a little bit of body textImplement robust hand tracking and gesture recognition through landmark detection techniques, facilitating functionalities including slide navigation, drawing, pointing, erasing, and screen clearing using hand gestures.



Goal n° 3

Design and optimize the user experience to ensure a seamless and user-friendly presentation interface, prioritizing intuitive interaction and smooth performance for presenters during presentations.

OBJECTIVES

Objective n° 1

Develop and implement a robust hand tracking and gesture recognition system using Mediapipe and OpenCV libraries, ensuring real-time detection of hand landmarks and accurate interpretation of gestures.

Objective n° 2

Enhance the user experience by providing clear and intuitive feedback, optimizing application performance for smooth interaction with presentation slides, and conducting thorough testing to validate accuracy and reliability.

Objective n° 3

Foster continuous improvement through user feedback gathering, documentation of the development process, and exploration of opportunities for expanding functionality, while promoting awareness and adoption of gesture-based presentation control solutions.

DEMONSTRATION

In the demonstration, witness the Hand-Gesture-Presentation-System in action, utilizing landmark detection for intuitive presentation control sans mouse or touchpad. With swift hand gestures, users seamlessly navigate between slides, highlight content, draw, erase, and clear the screen. Leveraging OpenCV for image processing and drawing, and Mediapipe for precise hand tracking, our system offers a fluid and hands-free presentation experience.