StreetSmart: A Game to Teach Pedestrian Safety to the Visually Impaired

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What is StreetSmart

StreetSmart is new app that simulates street crossing with orientation & mobility trivia. The app provides users with a fun and interactive way to learn about mobility and gain points for successful street crossings and correct trivia answers.

Functionalities

•Simulates street crossing. ElevenLabs notifies the user if they have successfully crossed the street.
•Asks trivia questions about orientation & mobility and checks answers. ElevenLabs notifies the user about the answer they selected.
•Users gain points for successful street crosses and correct trivia answers.

Technologies Used

- ElevenLabs: Used to read out trivia questions and notify the user if they have successfully crossed the street.
- Claude 2: Used to write the Python code powering the app.
- Streamlit: Used to build the interface.

Business Case and Inspiration

Inspired by the Covid 19 pandemic, an app was created that teaches orientation and mobility theory via trivia questions and simulates street crossing. In 2023, it would have an estimated market size of ~295 million people with vision impairments, or about 23% of the world's population with disabilities (~1.6 billion people).

Future Improvements

The app aims to provide an immersive and educational experience on traffic safety. To further enhance the user experience, the following improvements are planned:
•Building a 3D experience simulating different types of intersections and traffic patterns.
•Incorporating trivia questions at random times in the game to keep users engaged and informed.