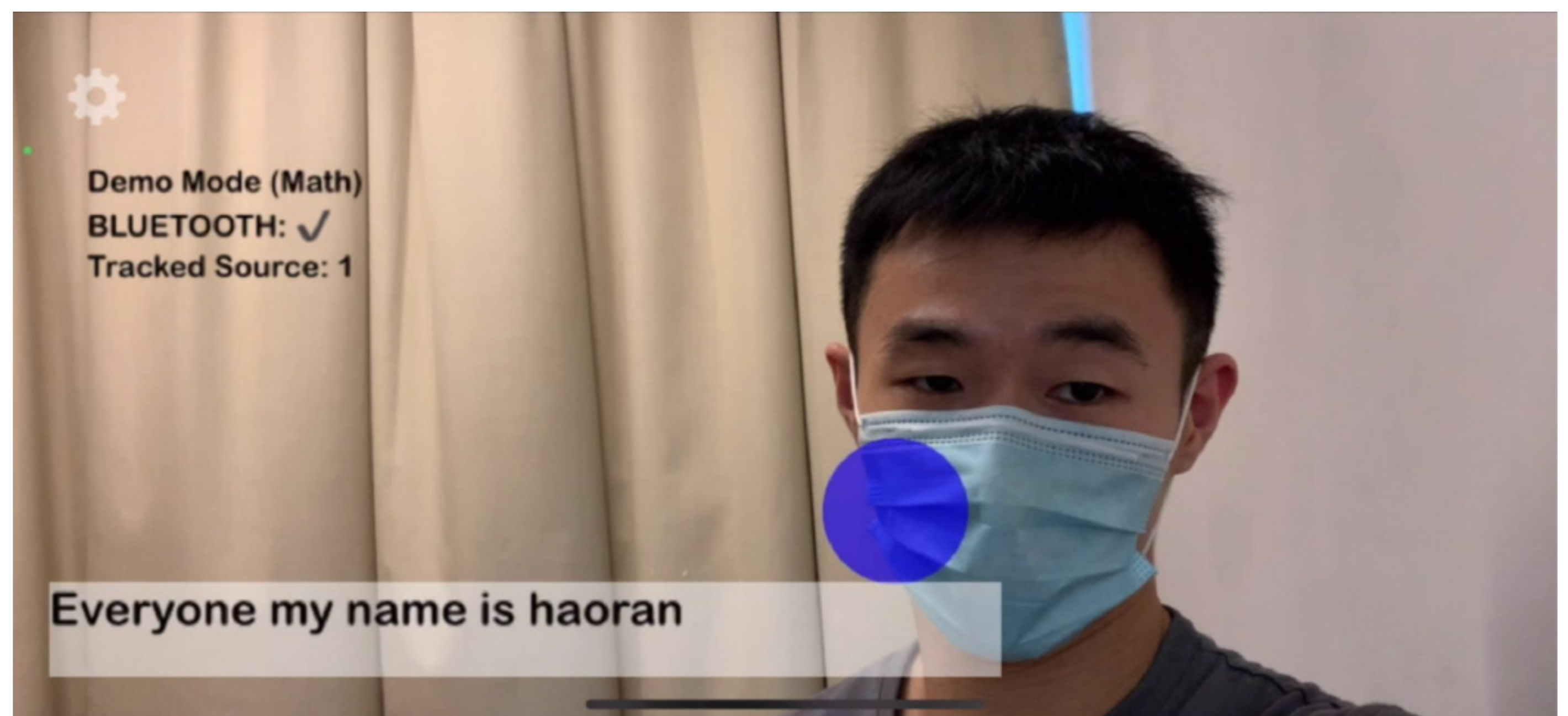
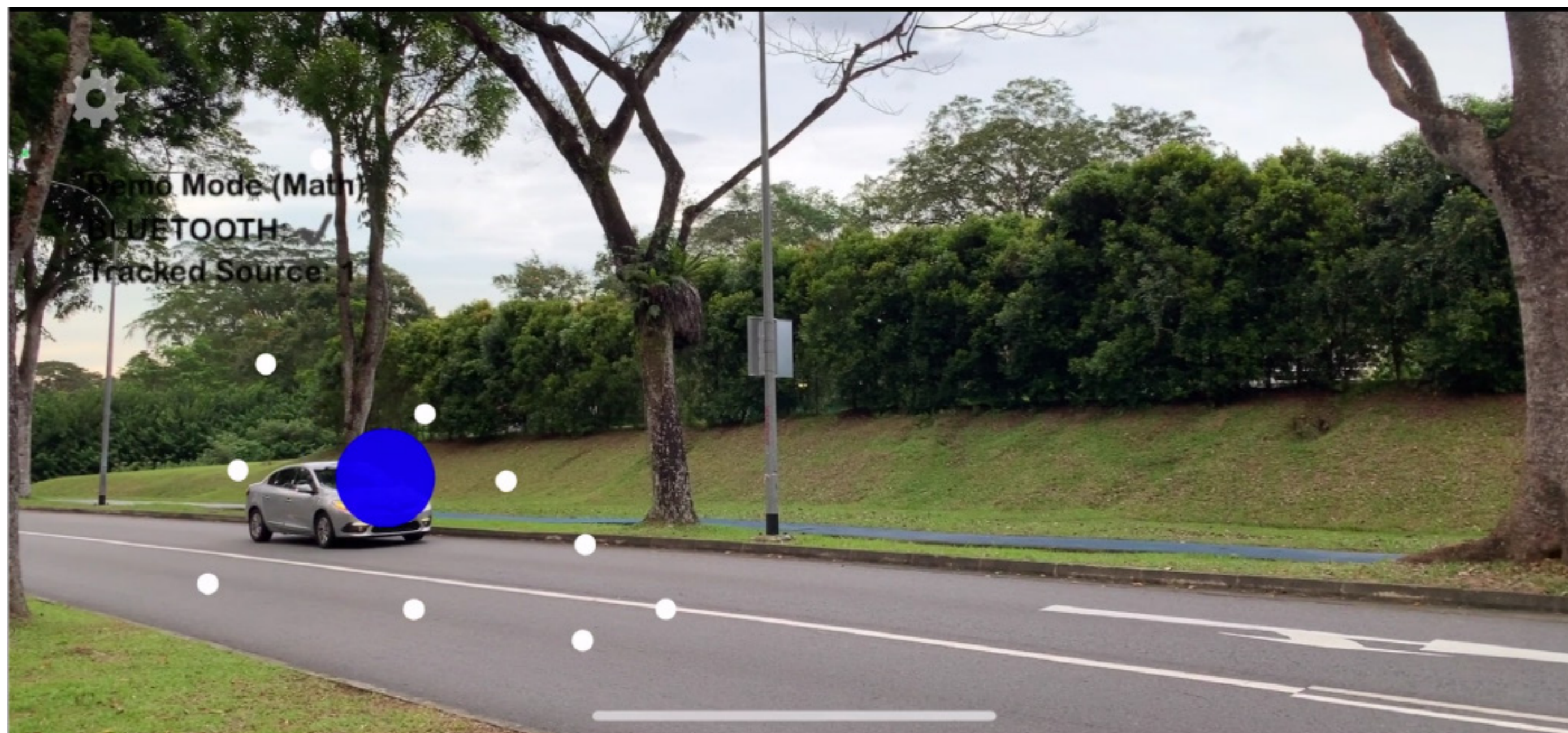


# The Augmented Human – Seeing Sounds For Hearing-Impaired Users to Sense the Sound

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## Project Objective:

This project aimed to explore the possibility of using microphone array to locate the sound sources in the environment and highlight them in the live video stream of iPhone. This provides a way for hearing-impaired users to visually sense the sound sources around them. A speech-to-text conversion was implemented to help the users with their daily conversation with other people.

## Features:

- Two approaches were explored to map the sound source location into video stream: mathematical model and machine learning model
- Enhanced algorithm to improve the success rate of identifying sound sources
- Real-time speech-to-text conversion and highlighting the person who is currently talking