Sign Language Interpreter

UMM AL-QURA UNIVERSITY

كلية الحاسب الآلي ونظم المعلومات
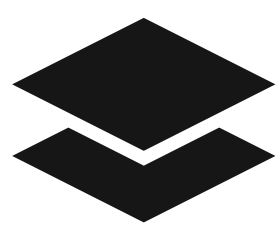College of Computer and Information Systems

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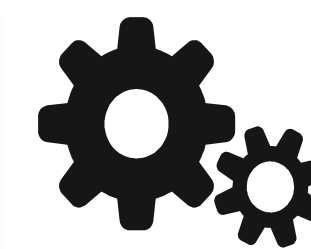Umm Al Qura University

Abstract
This project is a program that helps bridge signed and oral speech to make reciprocal communication possible.

Introduction
There are disabilities afflicting a variety of people, resulting in a communication disability. A solution is required to enable it.
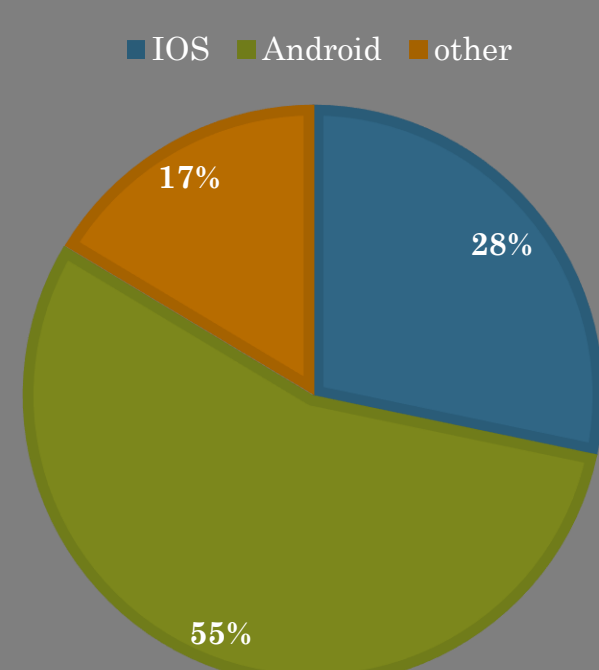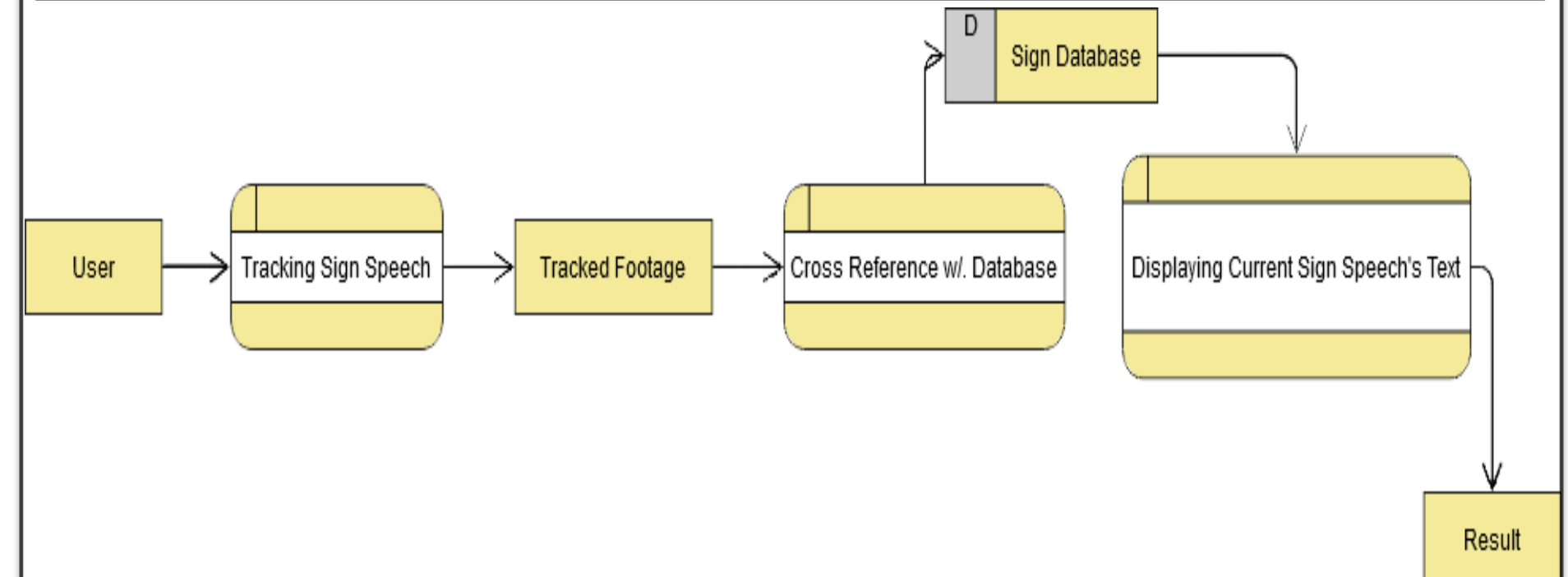
Methods
We track signed & oral speech, afterwards we interpret and show what was processed. Thus, creating a reciprocal channel.

Environment, Modeling, Justification and Result
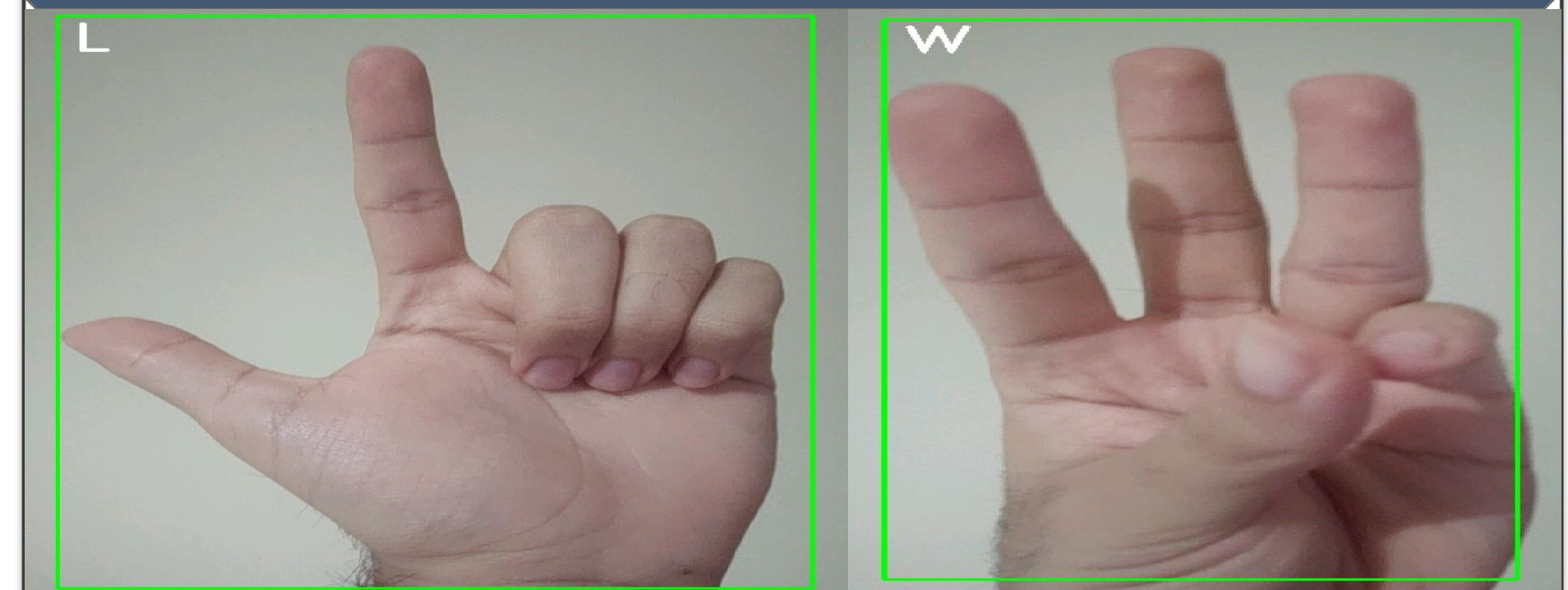
Environment

IOS 28%, Android 55%, other 17%

Model

Justification

Block	Justification
User	System idle state.
-Tracking Sign Speech	CNN and other models to track signed/oral speech.
Tracked Footage	Raw tracking footage.
-Cross Reference w. Database	Overlapped w/ database.
Sign Database	Saved pool of signed/oral lang-.
-Displaying Current Sign Speech's Text	After crossing, display processed result.
Result	System complete state.

Result

Programs Used

android studio   TensorFlow Lite   TensorFlow   python   OpenCV