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Multimodal Accessibility: Using Computer Vision to improve Speech Recognition in Simon

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## **Current Scenario**

A major obstacle for command and control speech recognition systems is to differentiate commands from background noise.

Currently Simon listens(take inputs) to whatever sound is made which may include bundles of noise.





## How it can be solved?

It will make lot more sense to activate the recognition only when the user is actively looking at the screen / robot.

So my project using computer vision determines when to activate / deactivate the recognition using visual cues

This is strikingly similar to communication between humans.

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#### **Expected Result**

A face detection / recognition context condition that activates or deactivates a microphone / acoustic model in Simon based on the presence of a user.

Selecting speech models by Recognizing face

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Toggle simon On/Off with gestures





# Thank you

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