

What is Keyword Spotting?

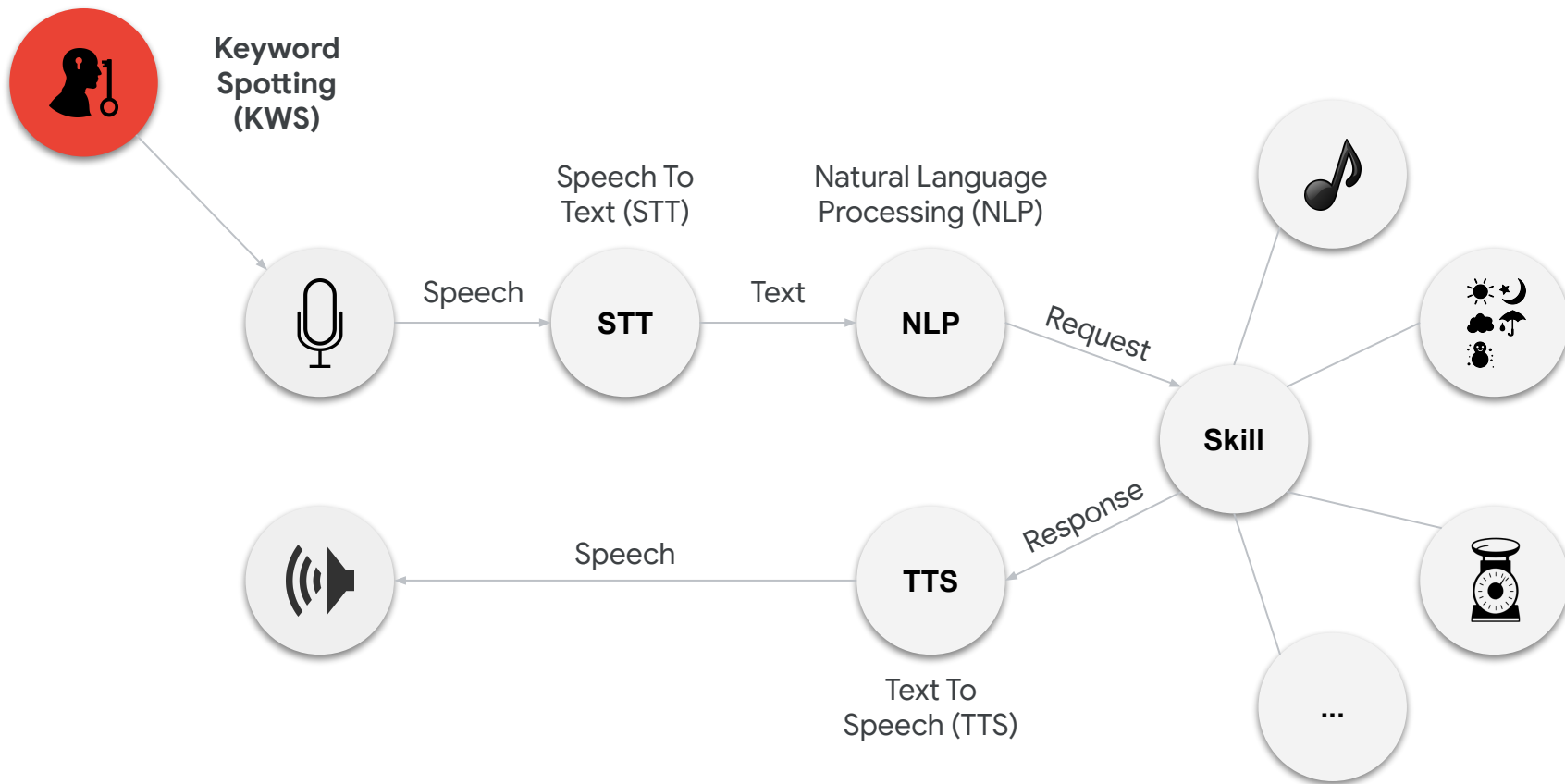


Keyword Spotting v. General Speech Recognition

- **Keyword spotting** is one of the most successful examples of **TinyML**
 - Low-power, continuous, on-device
 - Common Voice SWTS expands keyword spotting to more languages

Keyword Spotting v. General Speech Recognition

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 - Low-power, continuous, on-device
 - Common Voice SWTS expands keyword spotting to more languages
- **General ASR** still requires **larger, power-hungry models**
 - But it can run on mobile devices (offline dictation on smartphones)





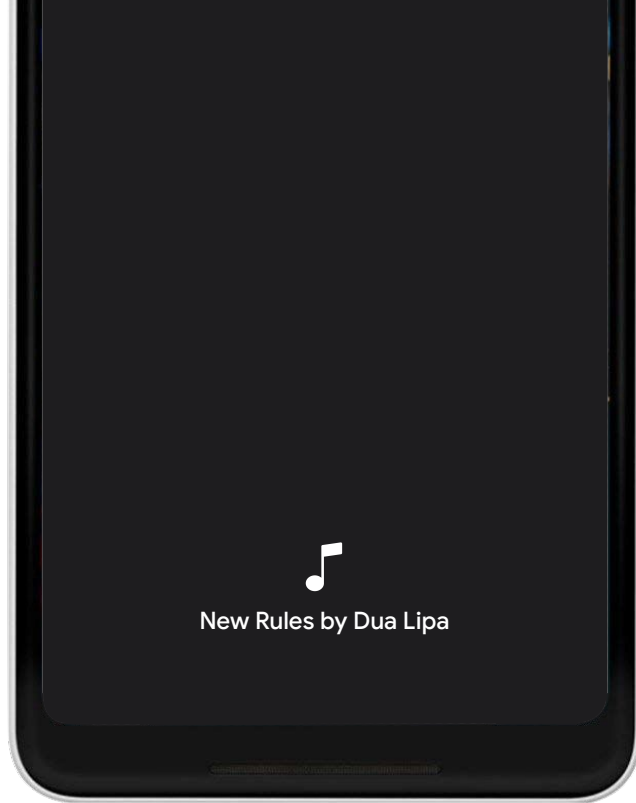




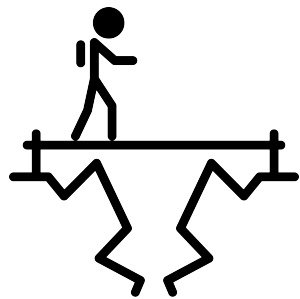


What else can **TinyML**
do with audio data?

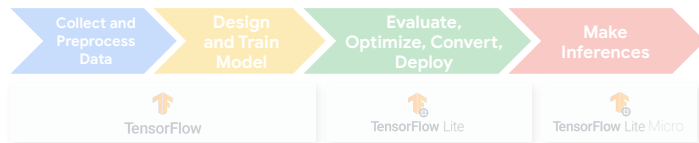
Now Playing
by Google



What are we going to learn?



Challenges with
Keyword
Spotting

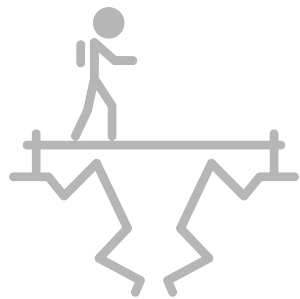


The Keyword
Spotting ML
Pipeline

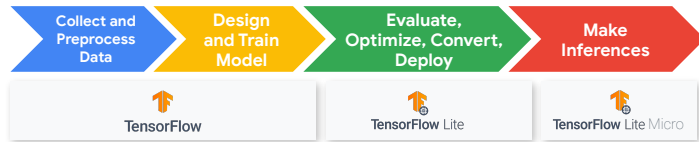


Hands-on training
of a Keyword
Spotting Model

What are we going to learn?



Challenges with
a Wake Words
Application

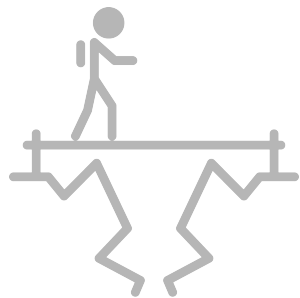


The Keyword
Spotting ML
Pipeline

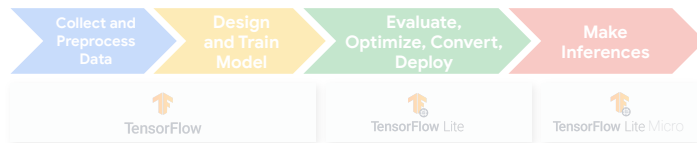


Hands-on training
of a wake words
model in Colab!

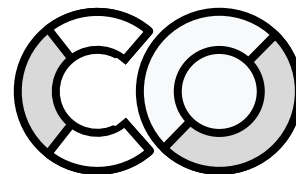
What are we going to learn?



Challenges with
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Application



The Wake
Words ML
Pipeline



Hands-on training
of a Keyword
Spotting Model