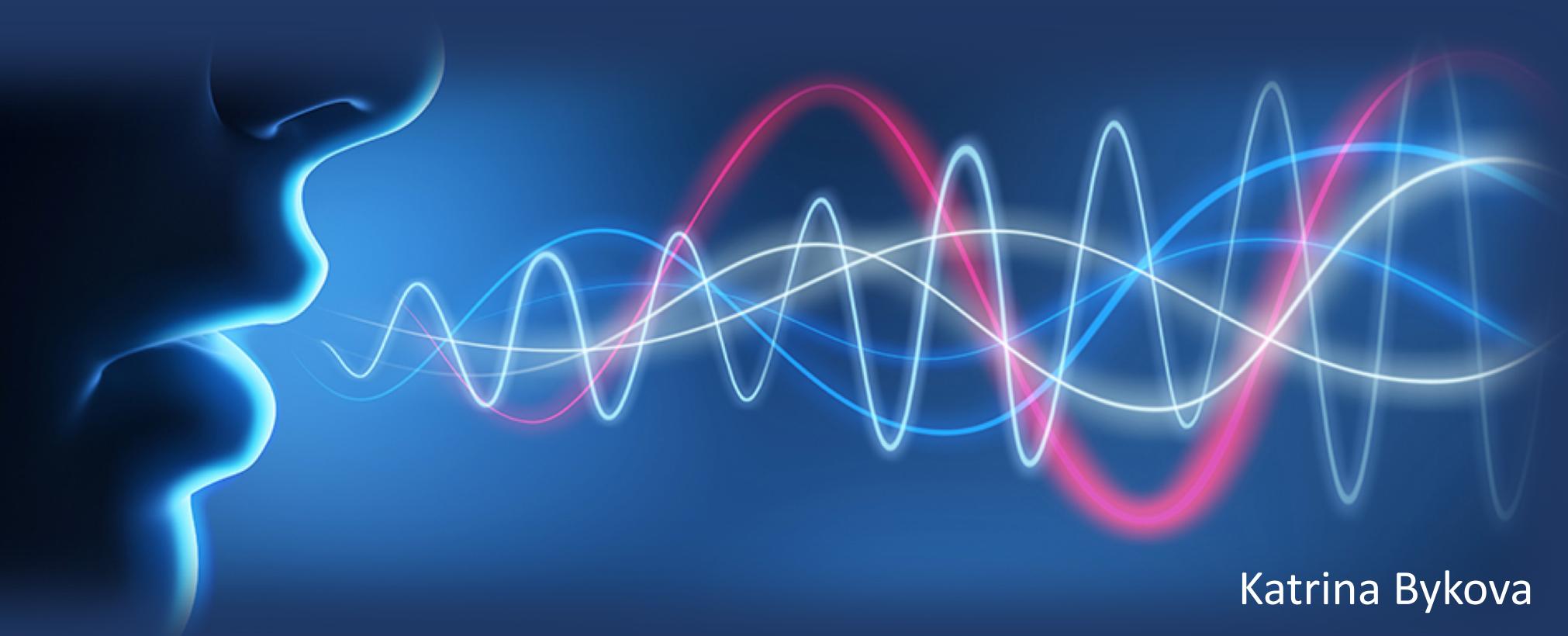


Speaker Recognition System



Katrina Bykova

Alexa with a disabled speaker recognition



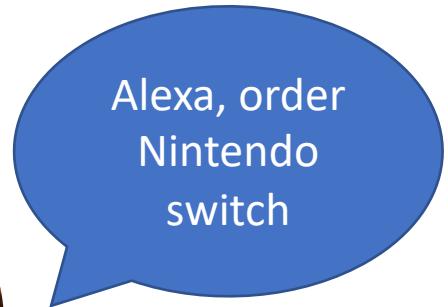
Out of laundry detergent



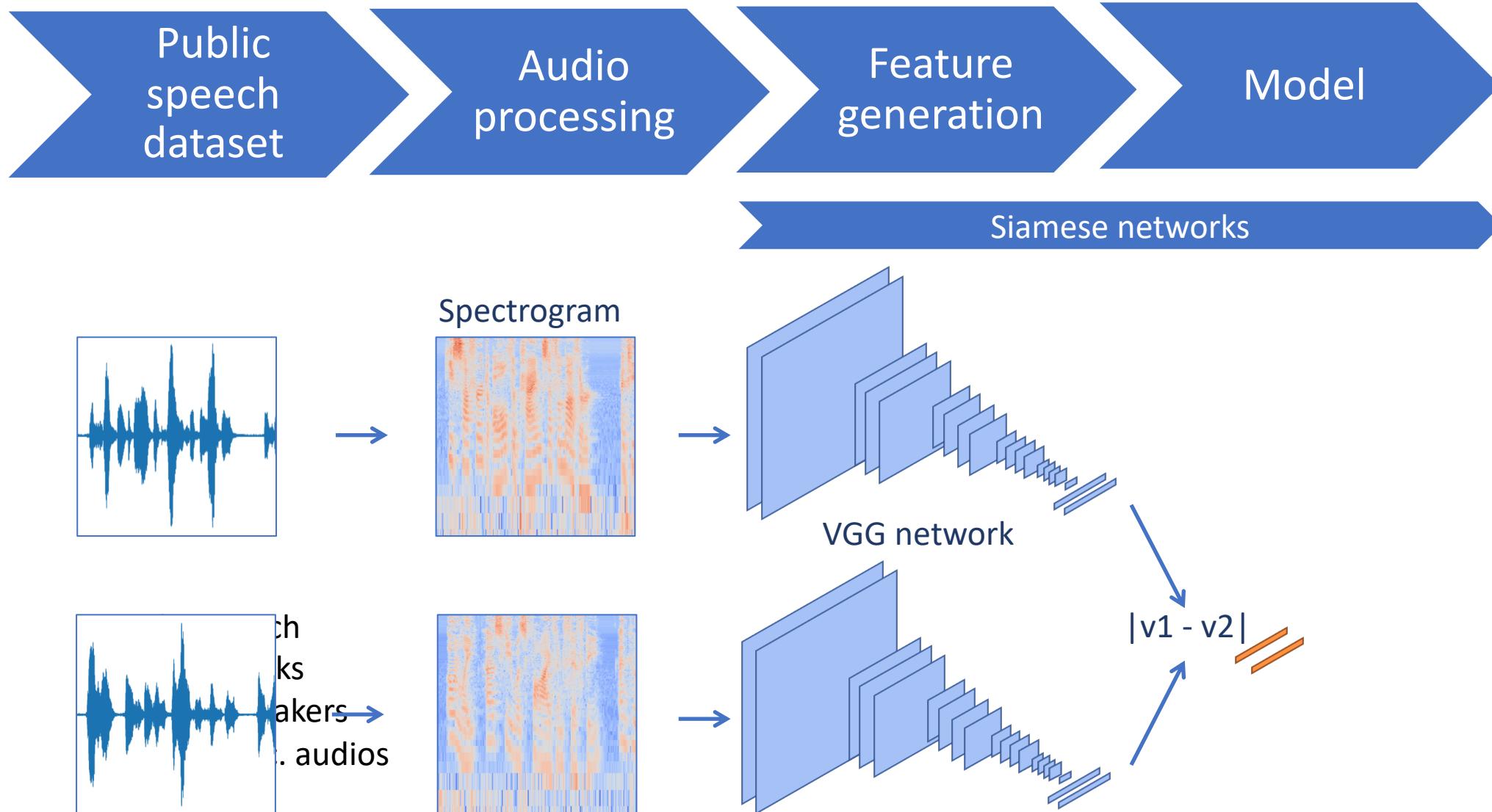
nice device



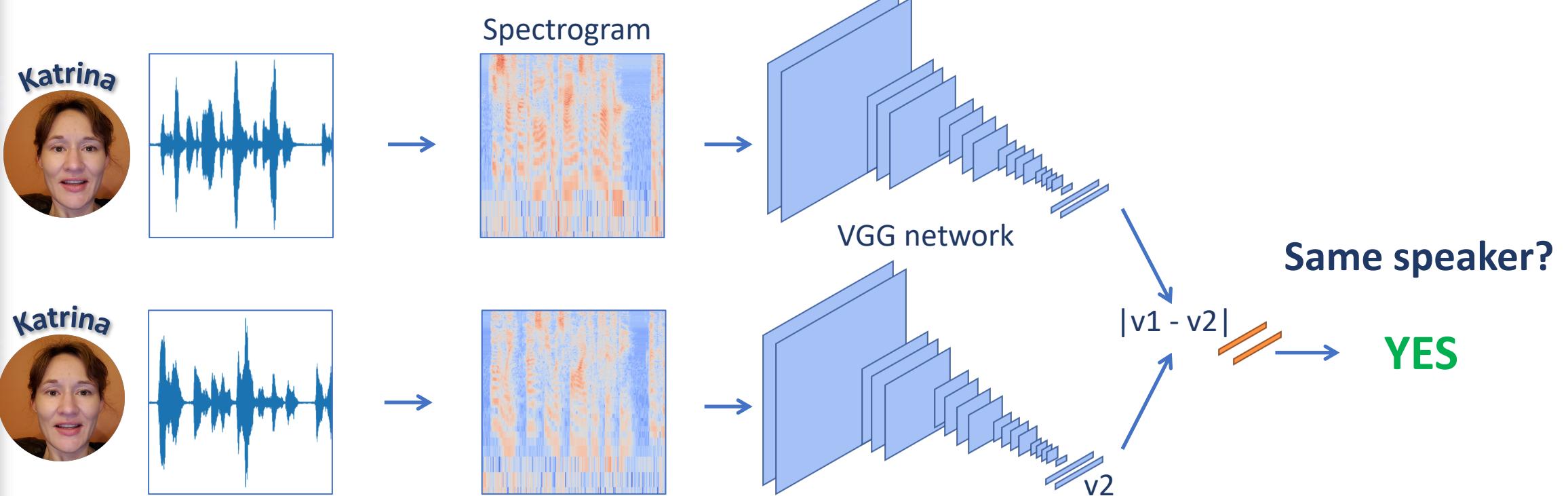
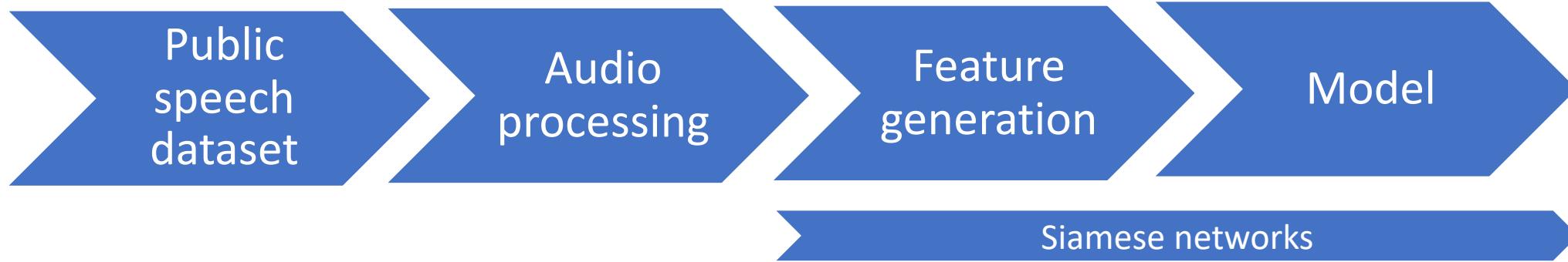
Loves video games



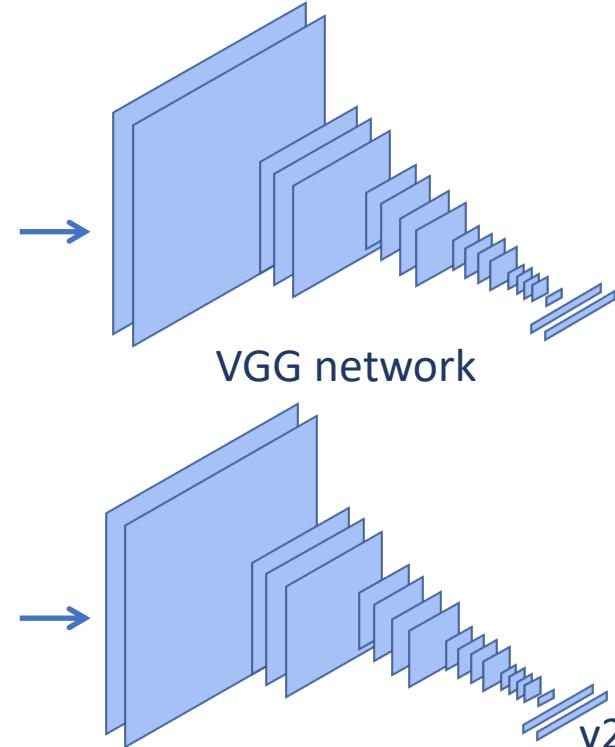
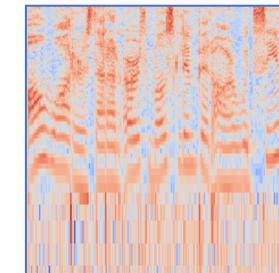
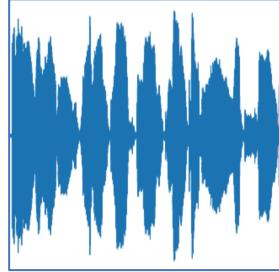
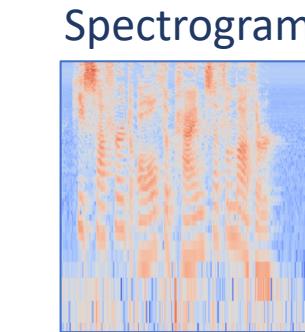
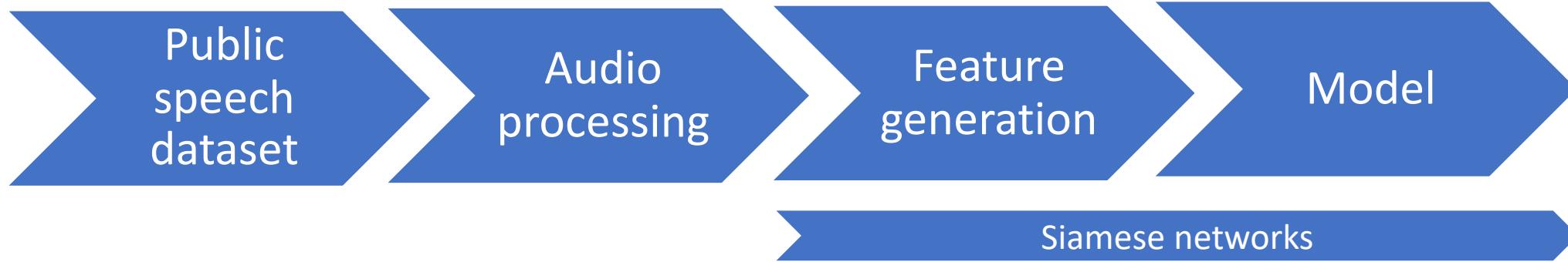
Speaker recognition algorithm



Speaker recognition algorithm



Speaker recognition algorithm



VGG network

Same speaker?

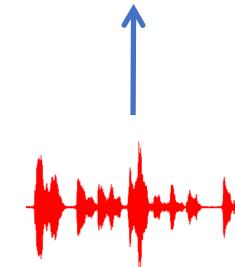
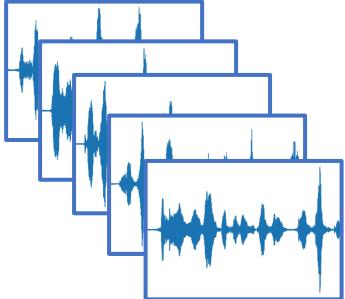
$$|v_1 - v_2| \neq v_2$$

NO

Speaker recognition algorithm performance



5 sample
voiceprint



Algorithm
performance

Accuracy 83%

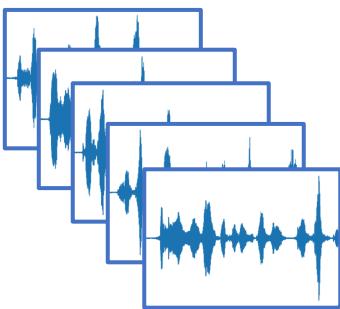
Error analysis

Misclassified
speakers

672-122797-0054

672-122797-0074

Alexa with an enabled speaker recognition



YES



NO

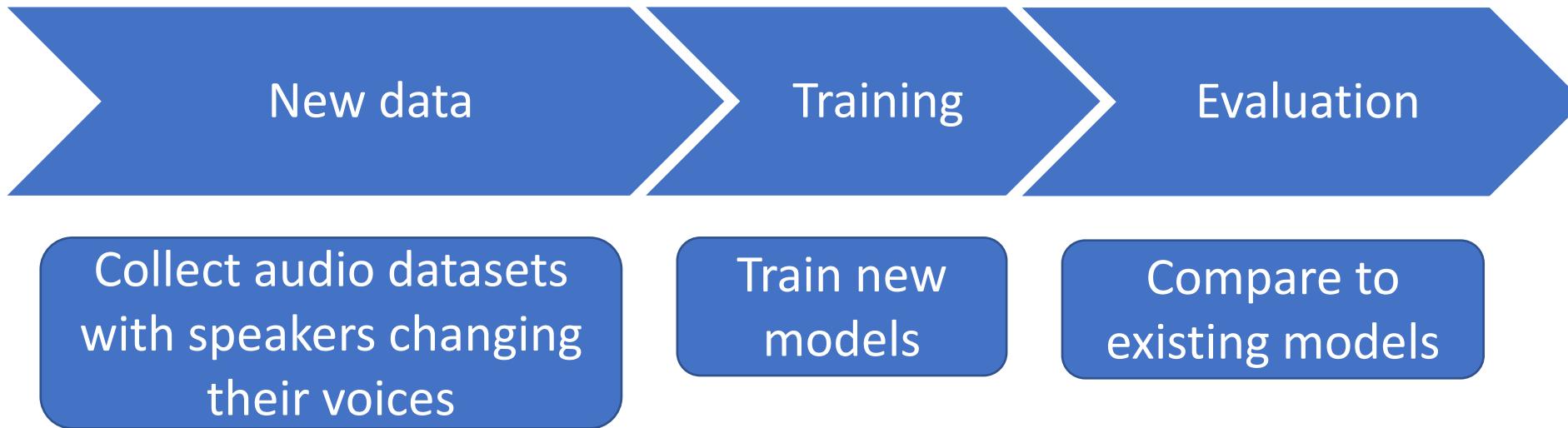
Order has
been placed



I'm sorry,
order can't
be placed

Just
what I
needed

Feature development

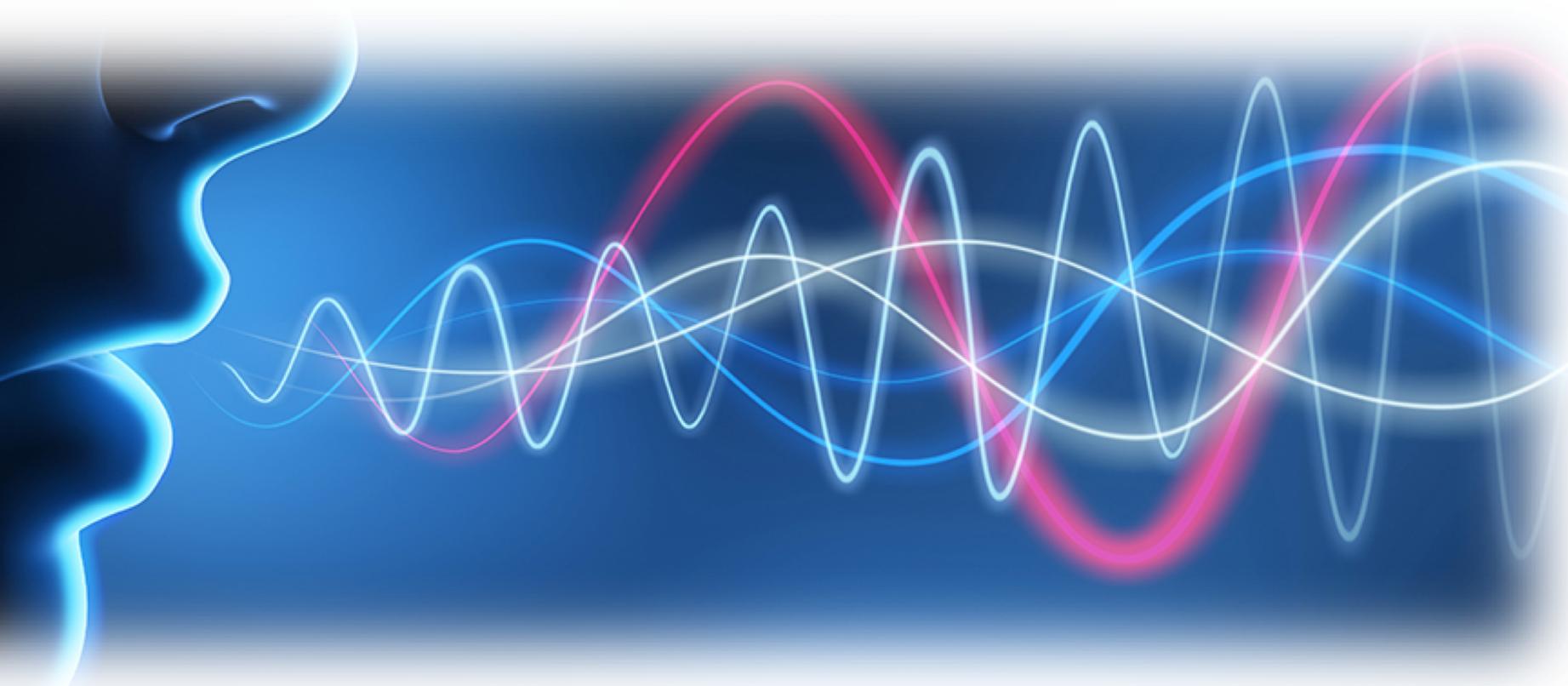




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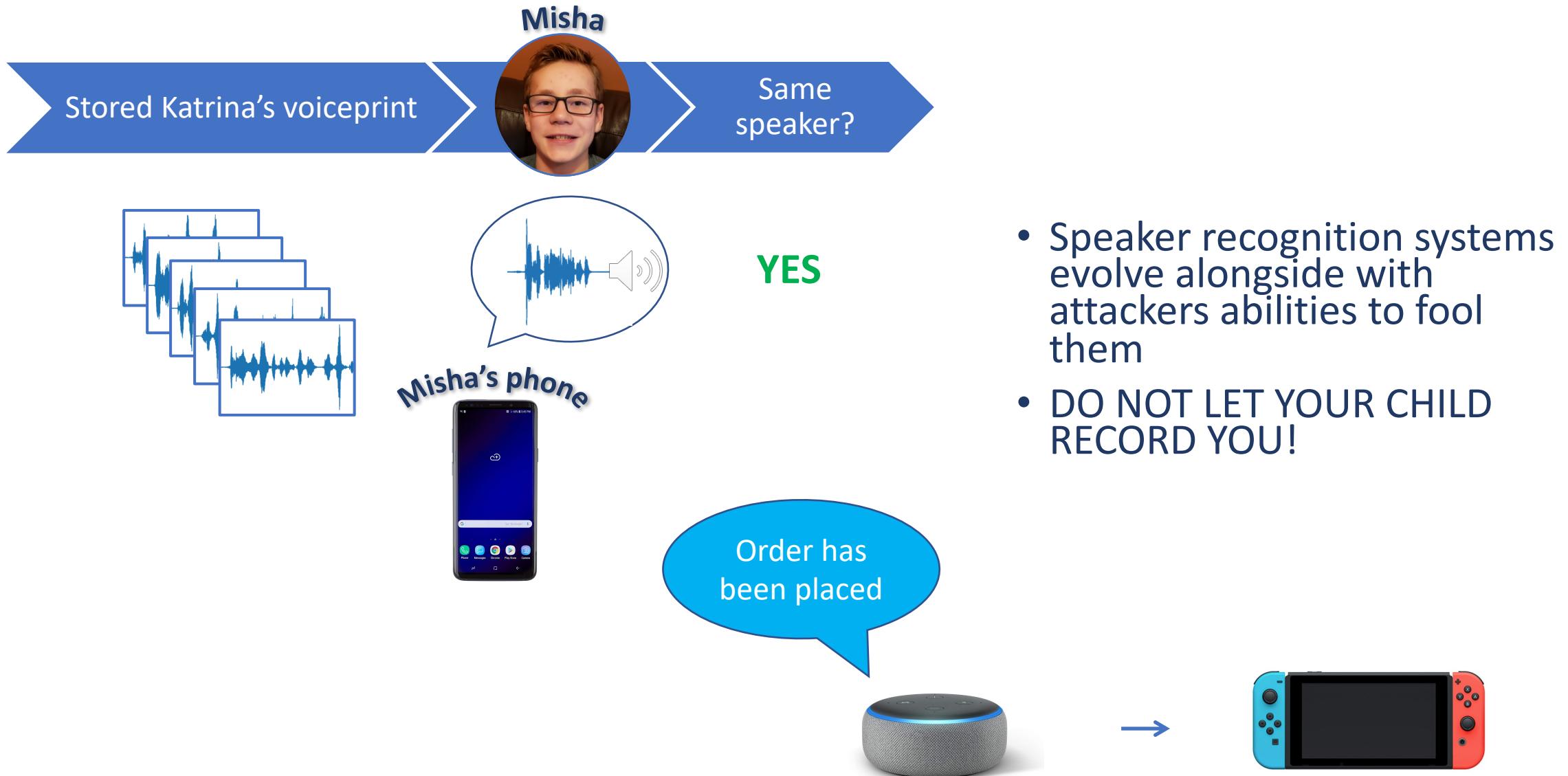
Thank you



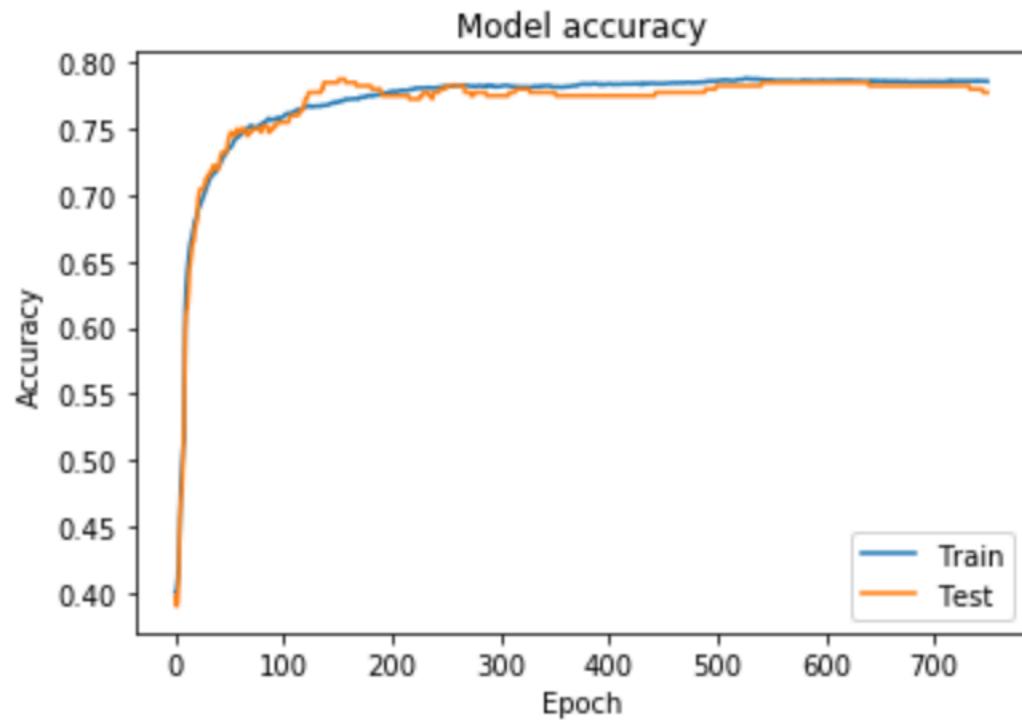
Additional slides



Future development



Building a speaker authentication protocol



One shot learning performance

