

Harvard

Yá'át'ééh 🖐️

CRESTLEX 3.0

CReating **E**ffective **ST**em
Learning **EX**periences

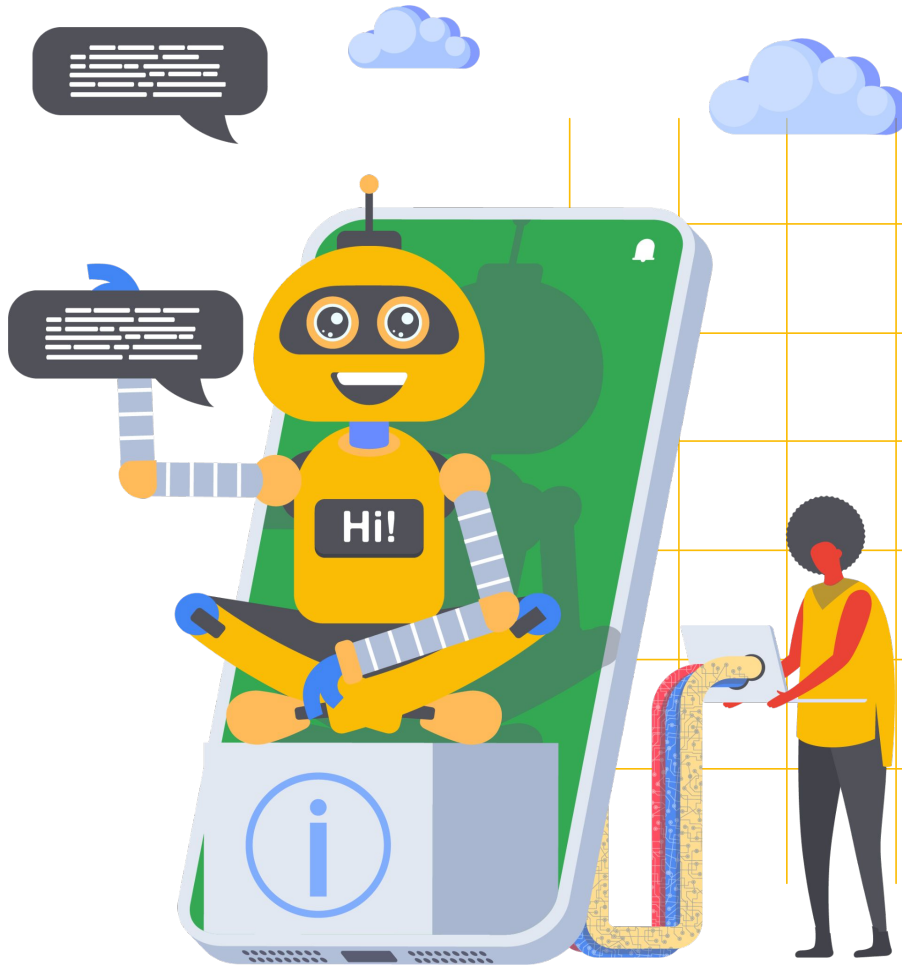
with Navajo Tech



Harvard

How ML works?

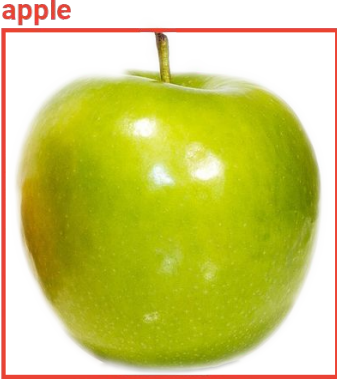
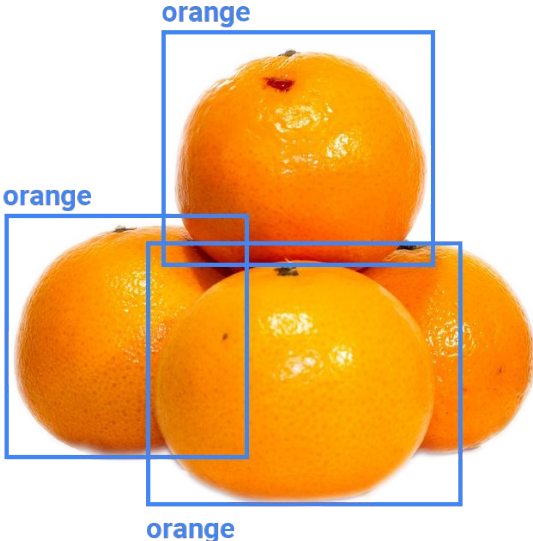
with Professor VJ



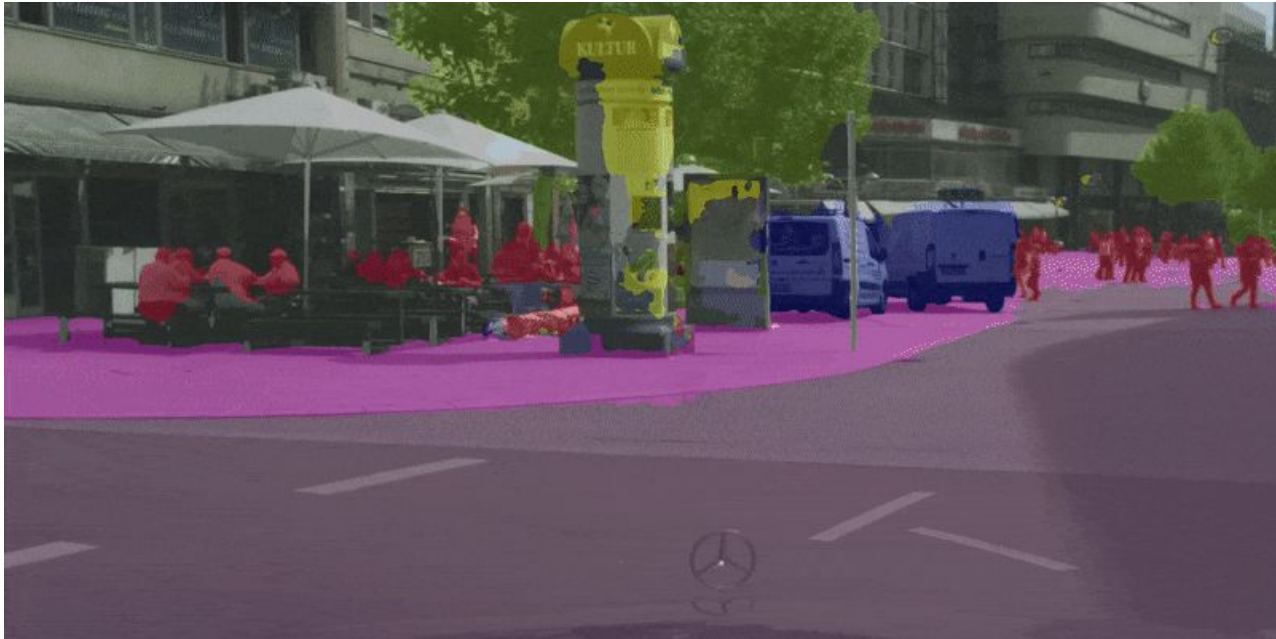
Review what we've learned

Machine learning provides a computer with data, **rather than explicit instructions**. Using these data, the computer learns to **recognize patterns** and becomes able to execute tasks on its own.

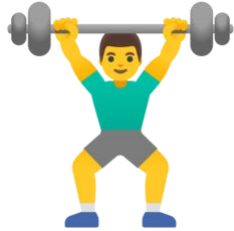
Object Detection



Segmentation



Training the machine



WE PROVIDE

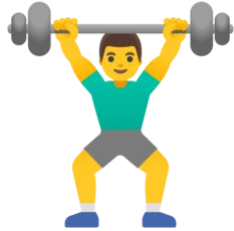
ANSWERS



INPUTS

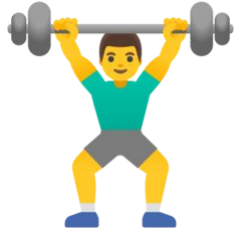
RULES

Training the machine



**Make a
Guess!**

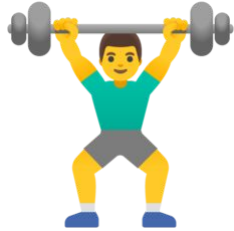
Training the machine



**Make a
Guess!**

Check
and count
mistakes

Training the machine

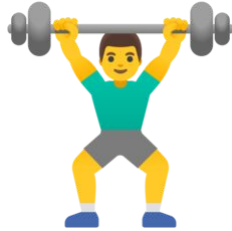


**Make a
Guess!**

Check
and count
mistakes

**Improve
your guess**

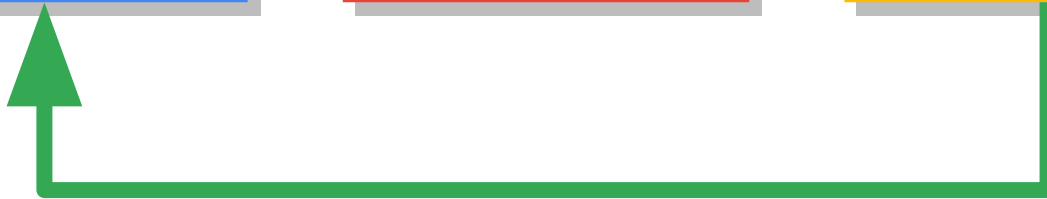
Training the machine



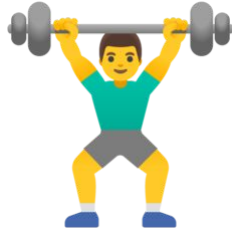
**Make a
Guess!**

**Check
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**Improve
your guess**



Training the machine

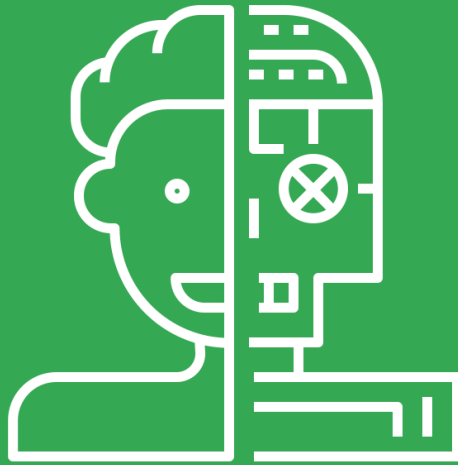


**Make a
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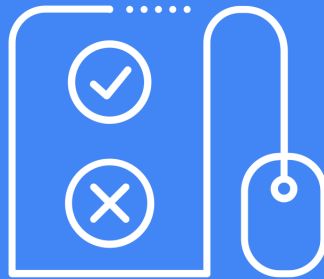
**Improve
your guess**

Artificial Intelligence



Artificial Intelligence

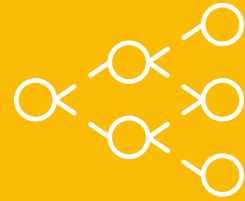
Machine Learning



Artificial Intelligence

Machine Learning

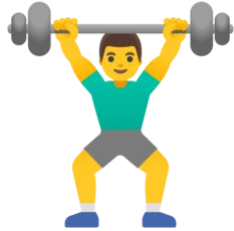
Deep Learning



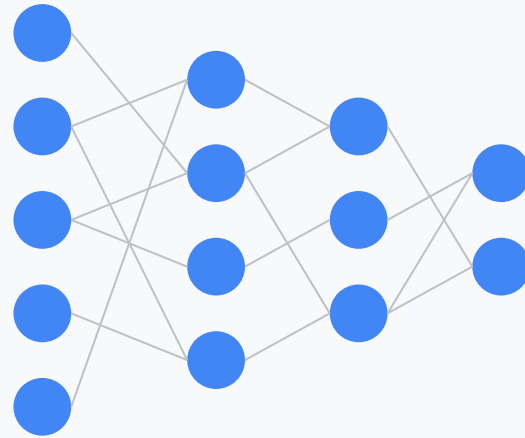
a lot of
DATA



Training the machine

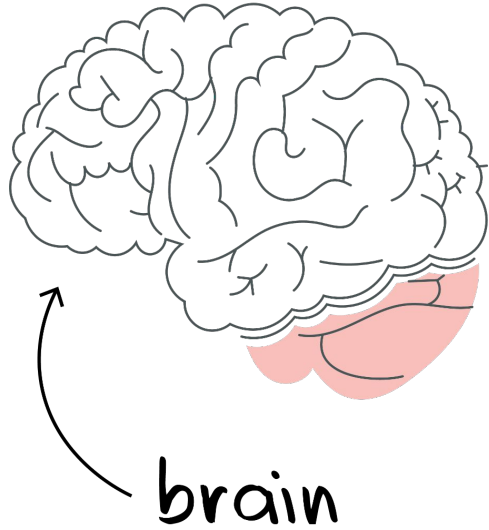


**Make a
Guess!**

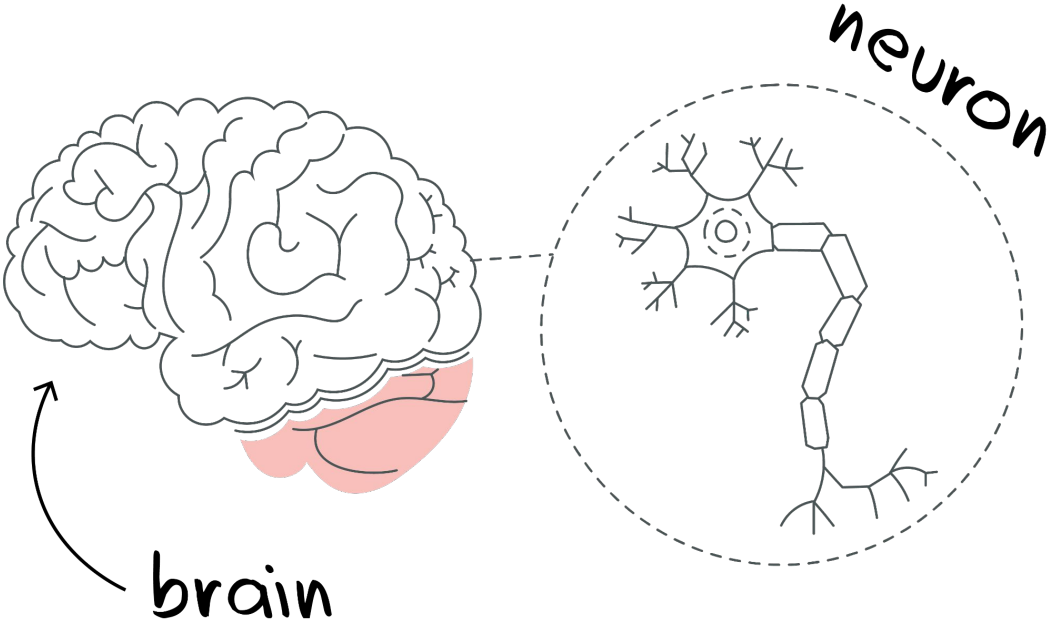


Neural Network

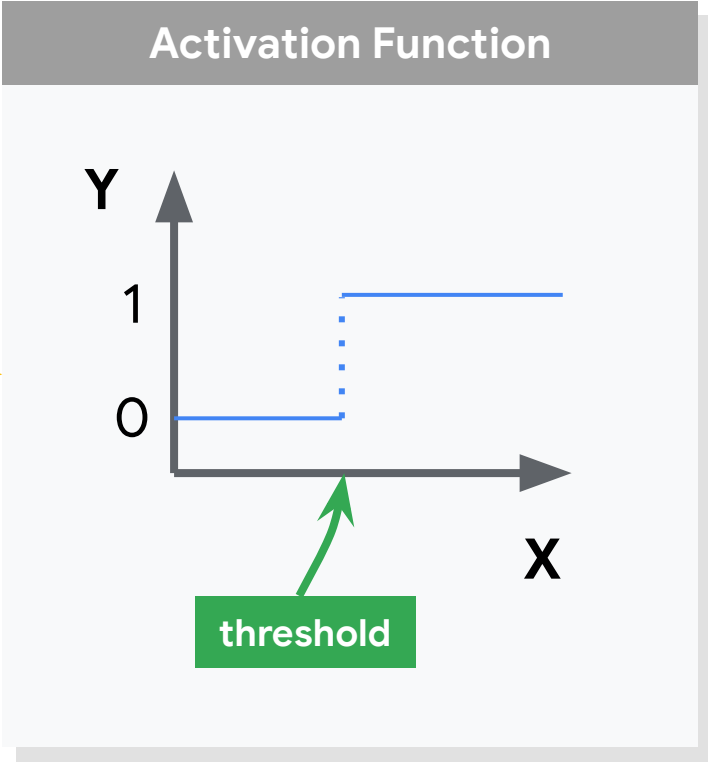
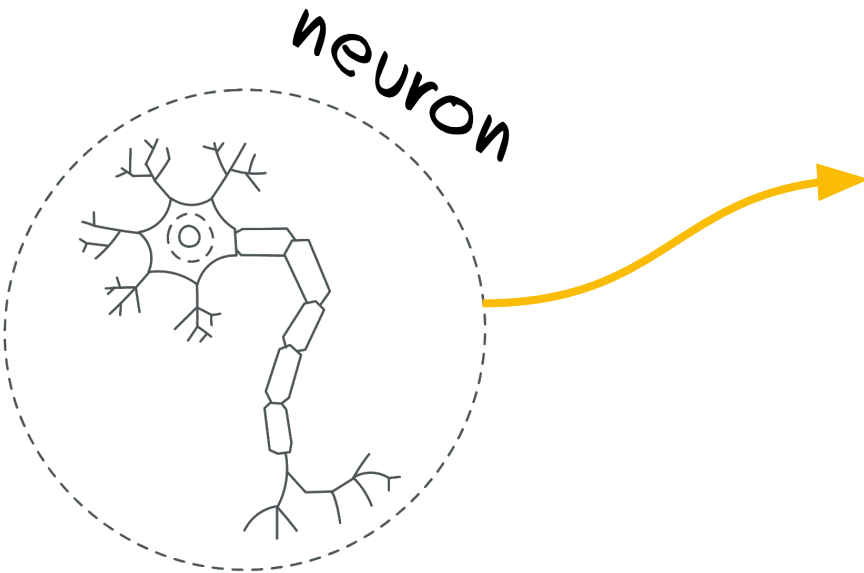
Neural network



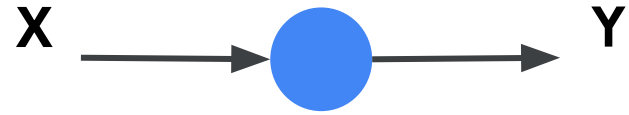
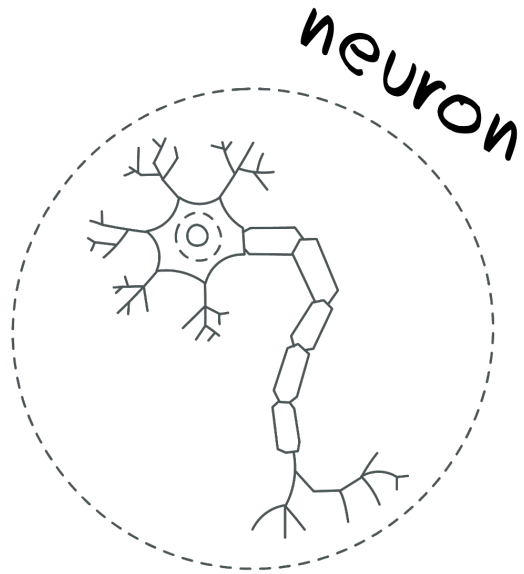
Neural network



Neural network

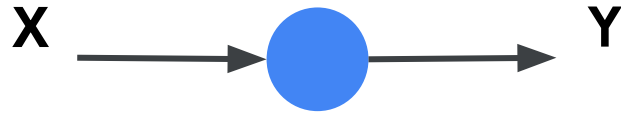


Neural network

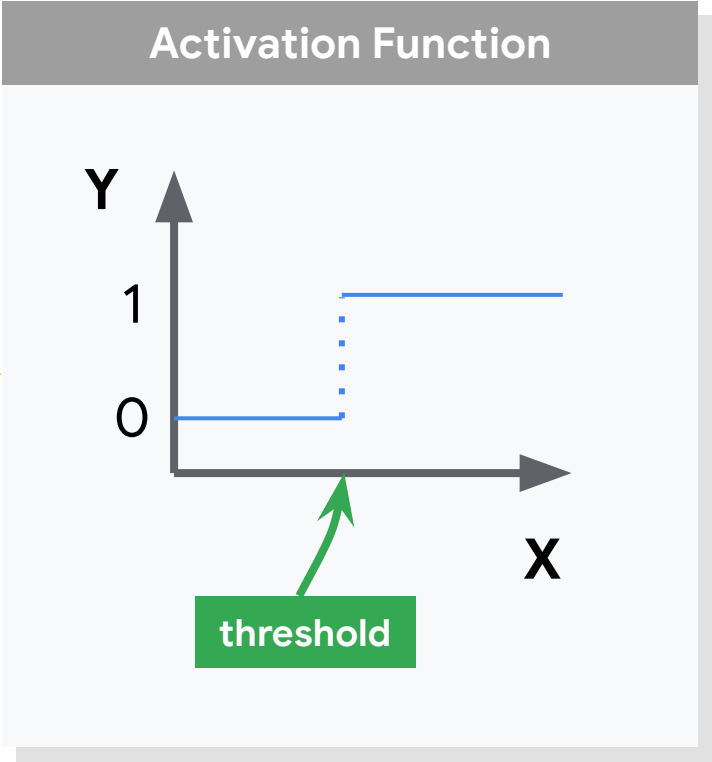
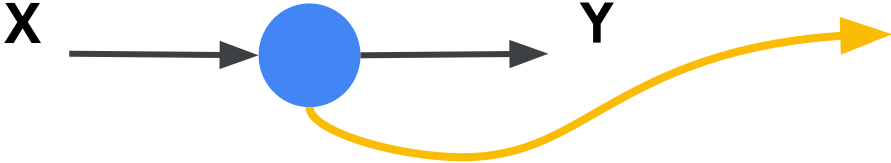


artificial

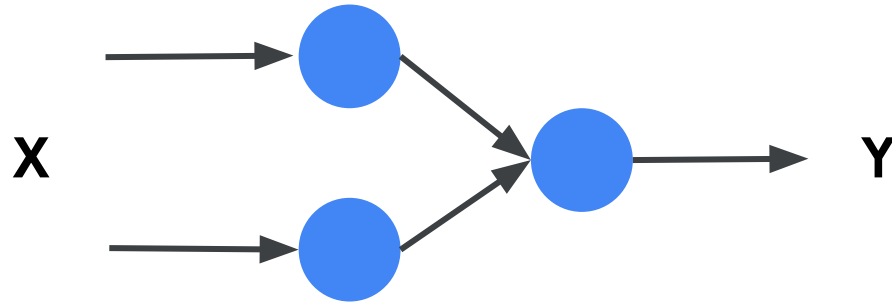
Neural network



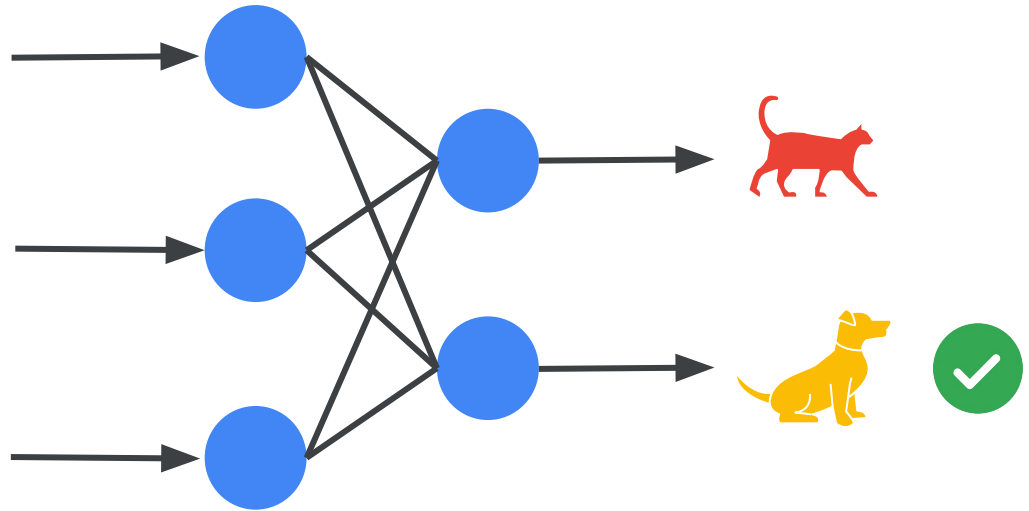
Neural network



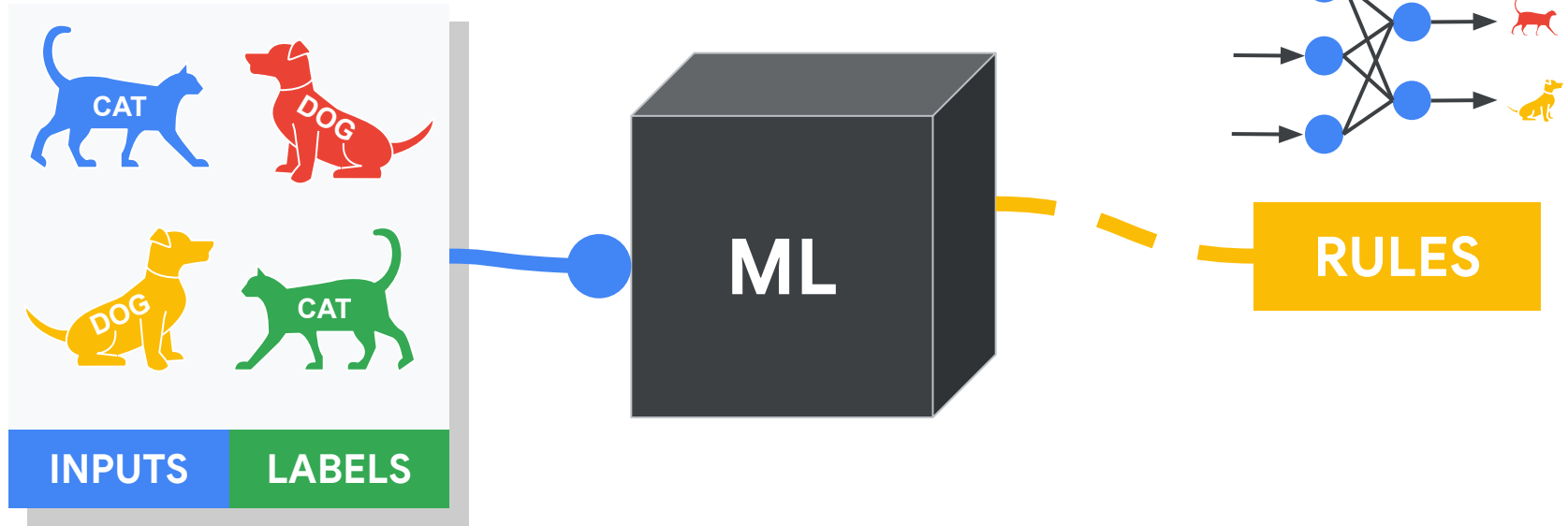
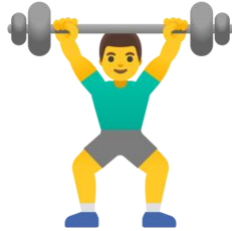
Multi-layer neural network



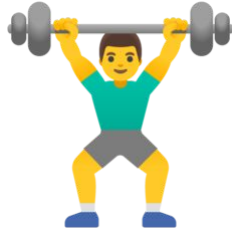
Deep Learning with **Neural Networks**



Training the machine



Training the machine

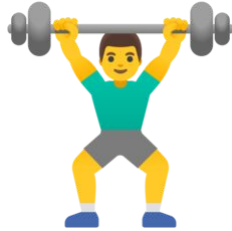


**Make a
Guess!**

Check
and count
mistakes

**Improve
your guess**

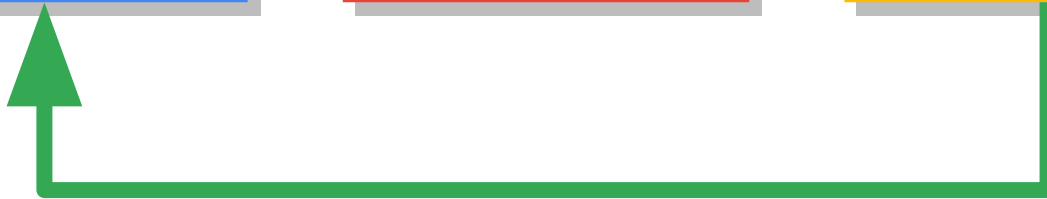
Training the machine



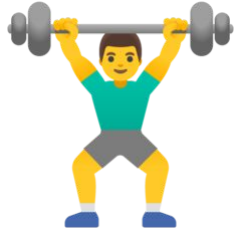
**Make a
Guess!**

**Check
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mistakes**

**Improve
your guess**



Training the machine

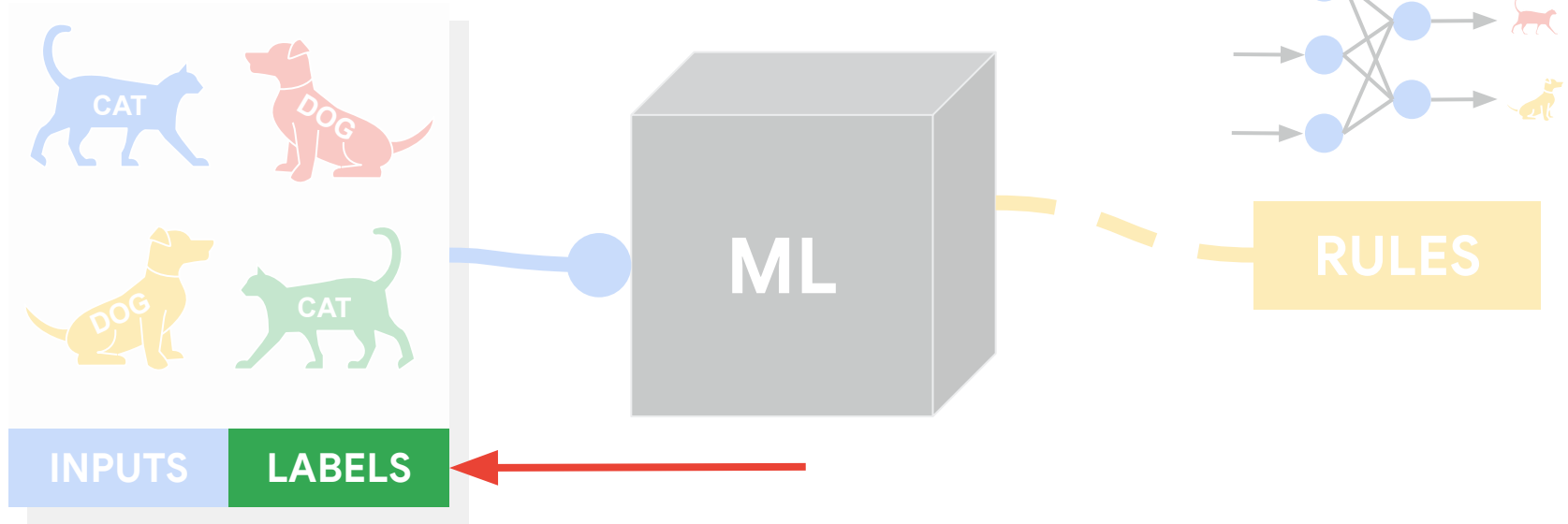
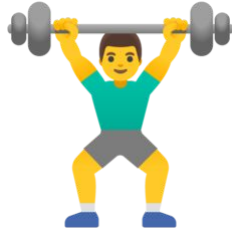


**Make a
Guess!**

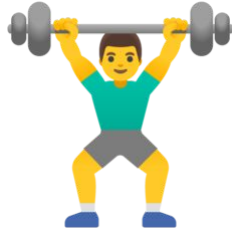
Check
and count
mistakes

**Improve
your guess**

Training the machine



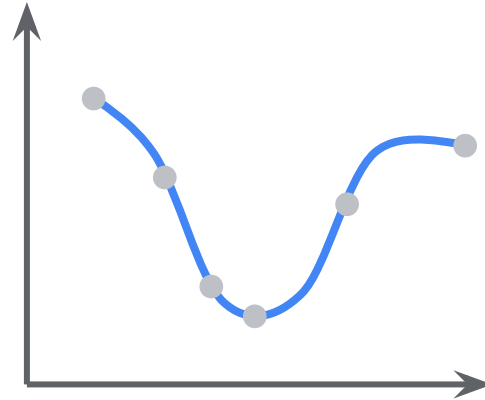
Training the machine



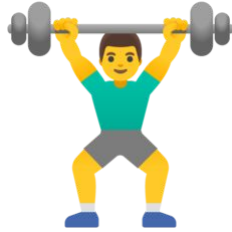
Loss
number of mistakes

Check
and count
mistakes

Improve
your guess



Training the machine



Check
and count
mistakes

Improve
your guess

Loss
number of mistakes

