



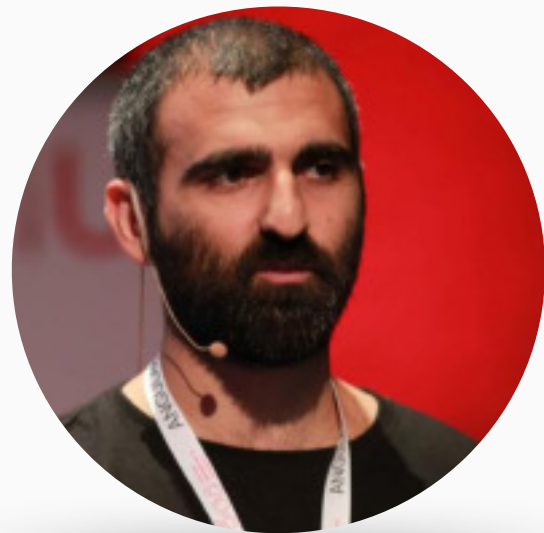
@eliraneliassy

Between AI& JS



About mySelf

- Experienced FE developer, specialised in B2C applications
- FE trainer & lecturer @ 500Tech
- Angular-IL & AngularUP conf CO-organiser





Building powerful Angular community

ANGULAR | UP
CONFERENCE



meetup



ANGULAR | UP
SPEAKERS TEAM SPONSORS VENUE NO-TOUR 2018 VIDEOS

EVENTS

ANGULAR | UP

Israel's International Angular Conference & Tour

EVENTS

Tel Aviv, June 12th 2019

▼

The image shows a website landing page for the Angular | UP conference. The background is a dark, blue-toned cityscape at night with glowing windows and lights. The text is centered and uses a clean, sans-serif font. The main title 'ANGULAR | UP' is in white and red. Below it, the subtitle 'Israel's International Angular Conference & Tour' is in white. There are two blue buttons with white text: 'EVENTS' in the top right corner and another 'EVENTS' button in the center. At the bottom center, there is a small white downward-pointing arrow.



machine learning

Search term

Worldwide, 2004 - present



artificial intelligence

Search term

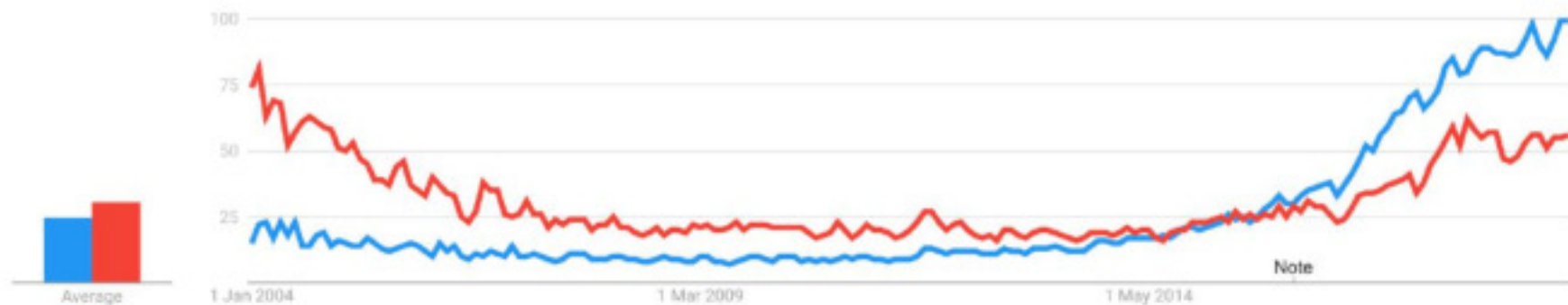
Worldwide, 2004 - present

+ Add comparison

All categories ▾

Web Search ▾

Interest over time 



Compared breakdown by region

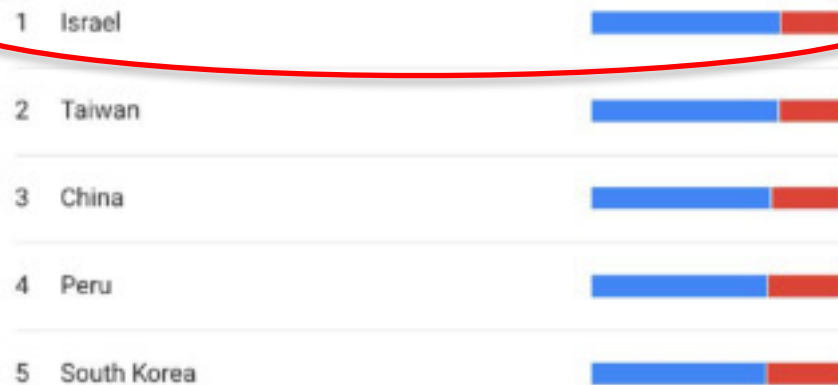
Region ▾ ⬇ ⏪ ⏩

● machine learning ● artificial intelligence



Colour intensity represents percentage of searches [FIND OUT MORE](#)

Sort: Interest for machine learning ▾



Include low search volume regions

< Showing 1–5 of 63 regions >



SO, WHY THE HECK

**IS EVERYONE I KNOW CALLING
THEMSELVES DATA SCIENTISTS?**

Median Total Compensation by Specialty



Related queries 

Rising



1 python machine learning

Breakout

2 python

Breakout

3 deep learning

Breakout

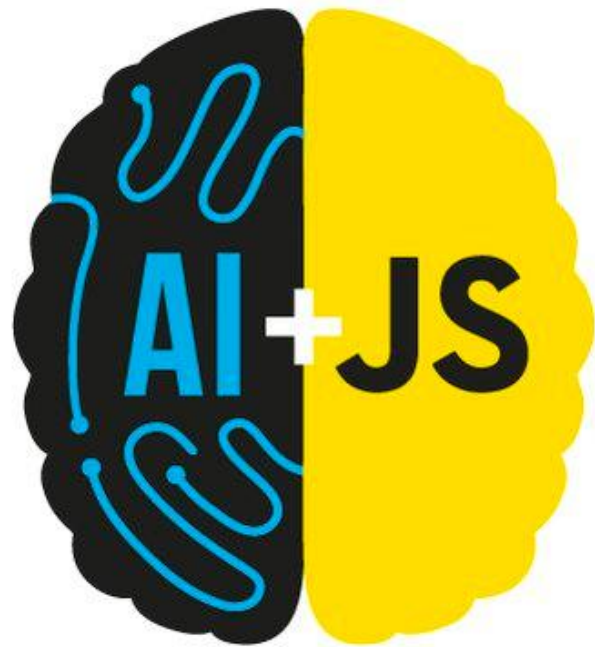
4 deep learning machine learning

Breakout

5 deep machine learning

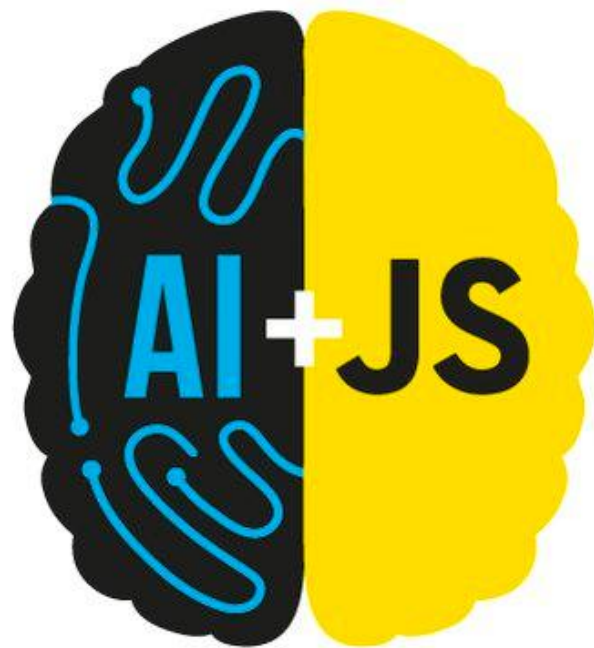
Breakout

< Showing 1-5 of 25 queries >



 TensorFlow.js

ml 5



What is AI?

“The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making and translation between Languages”

What is AI?

“The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making and translation between Languages”



What is AI?



What is AI?



What is AI?



What is AI?

NETFLIX



What is AI?

NETFLIX

Google



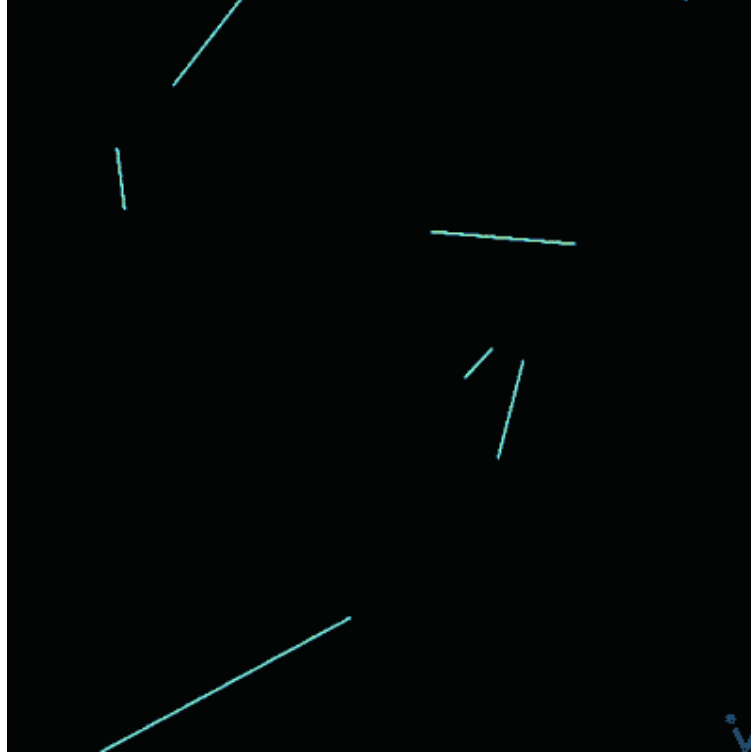
What is AI?

NETFLIX

Google



AI is EVERYWHERE



Facebook's facial recognition now finds photos you're untagged in

Josh Constine @joshconstine / 1 year ago

 Comment



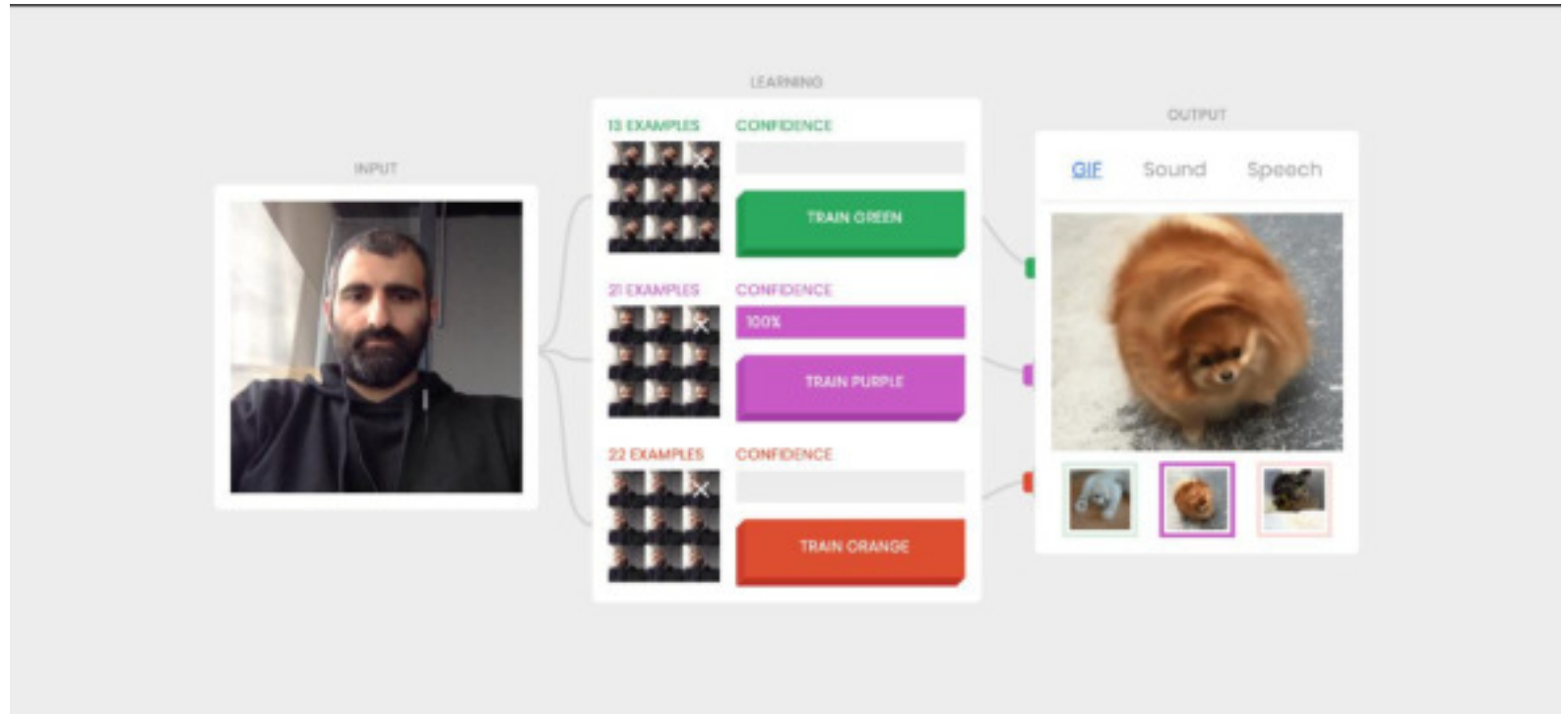
Gary Chavez added a photo you might ...
be in.

about a minute ago · 



<https://techcrunch.com/2017/12/19/facebook-facial-recognition-photos/>

Example - Image Recognition



Example - Image Recognition

wine

or

UPLOAD IMAGE



Inference Time: 51.0 ms

red wine 81%

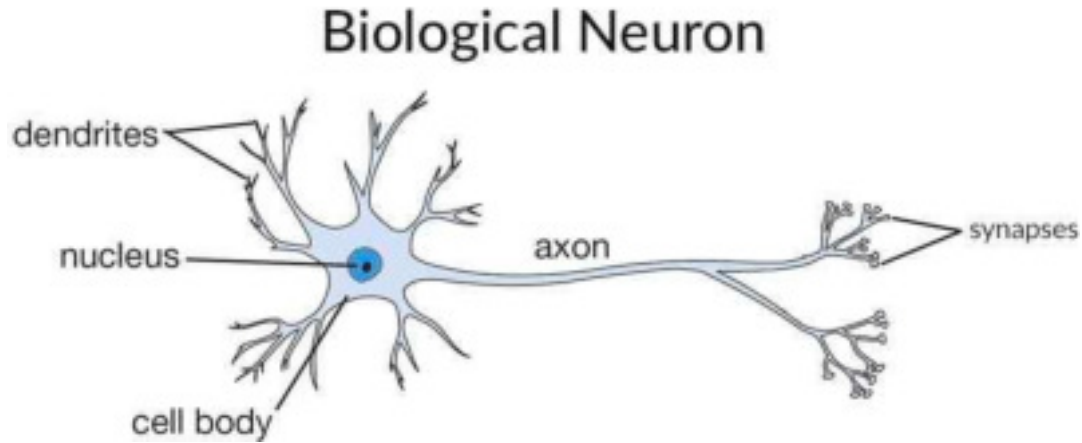
goblet 15%

beer glass 2%

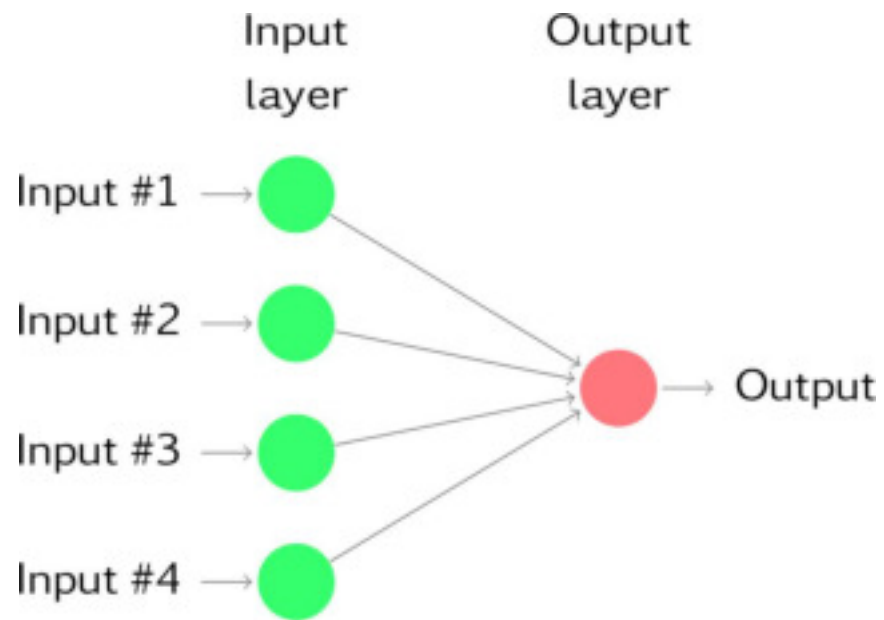
wine bottle 1%

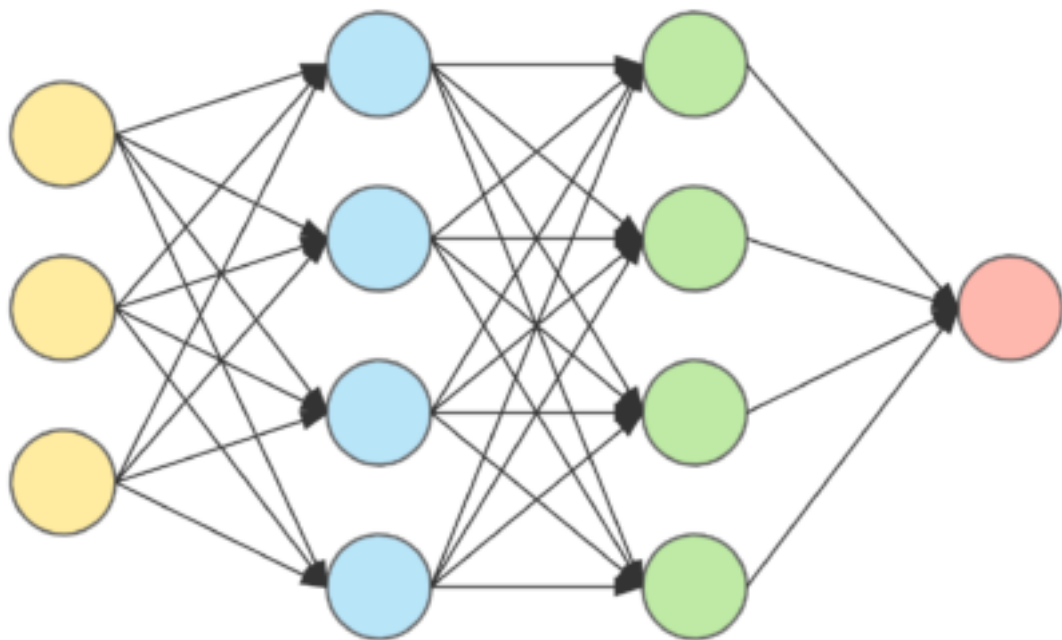
perfume 0%

How does it works?







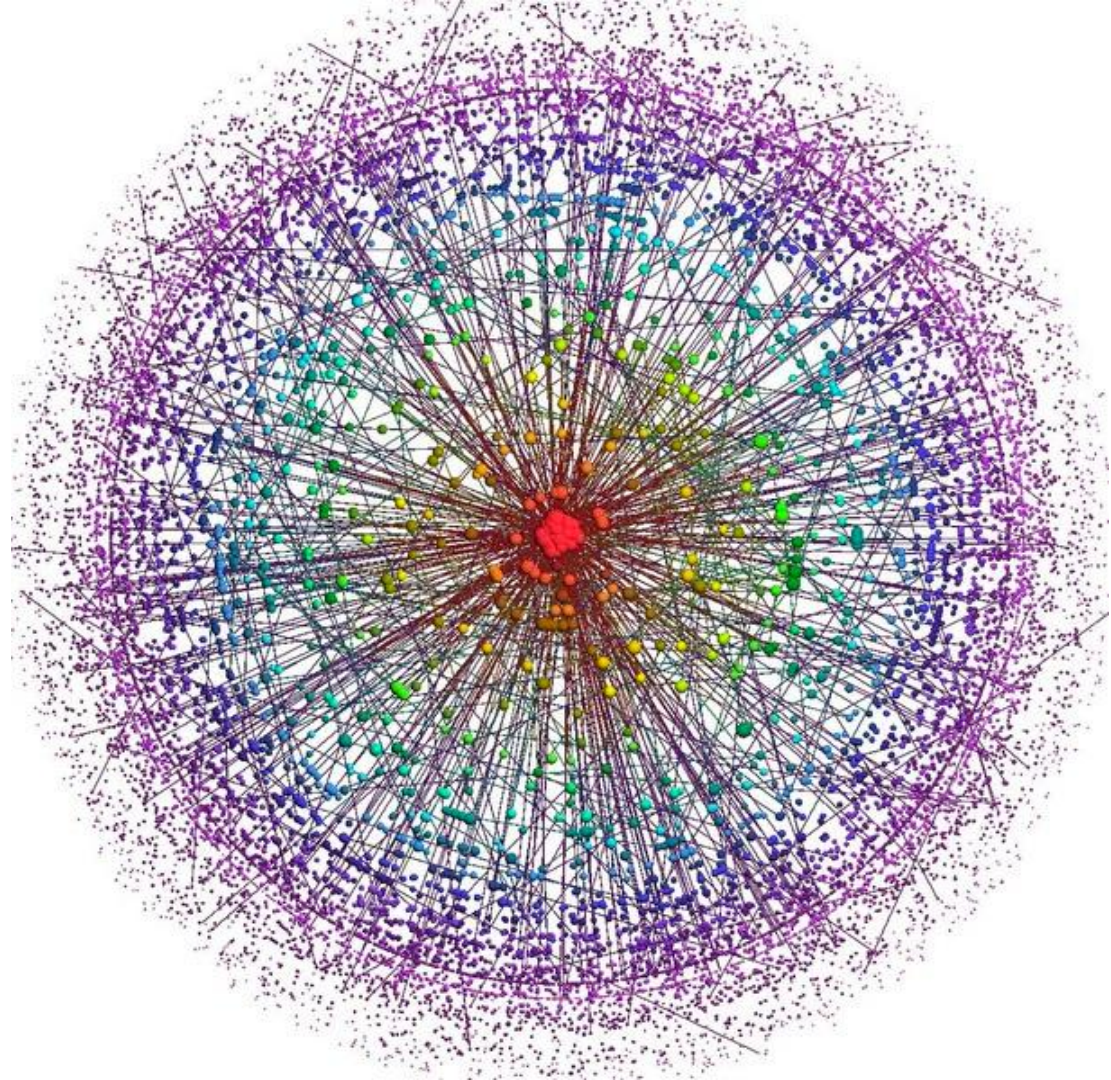


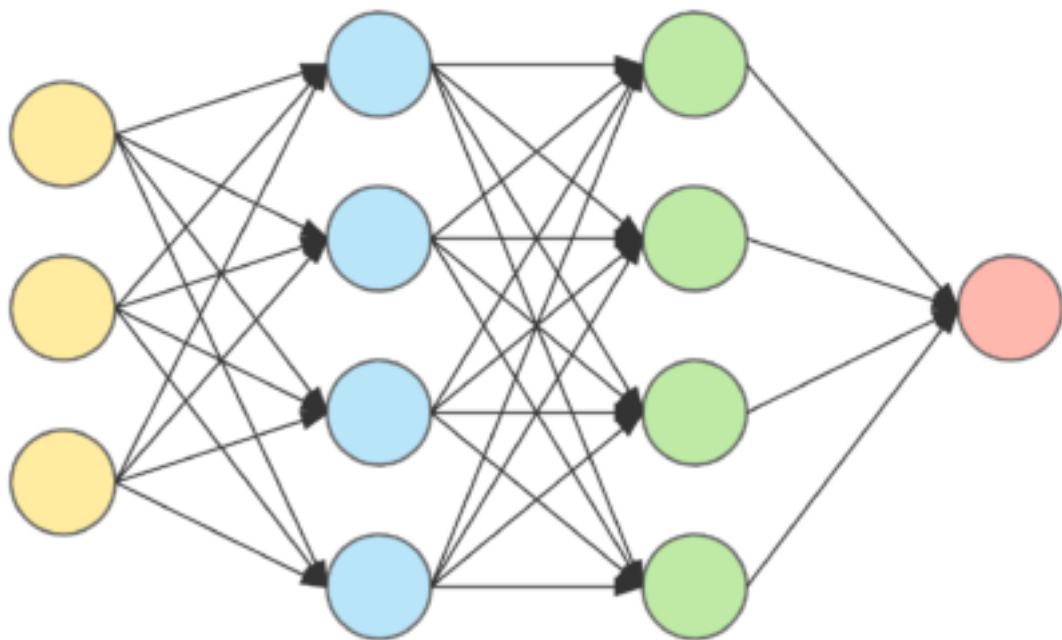
input layer

hidden layer 1

hidden layer 2

output layer



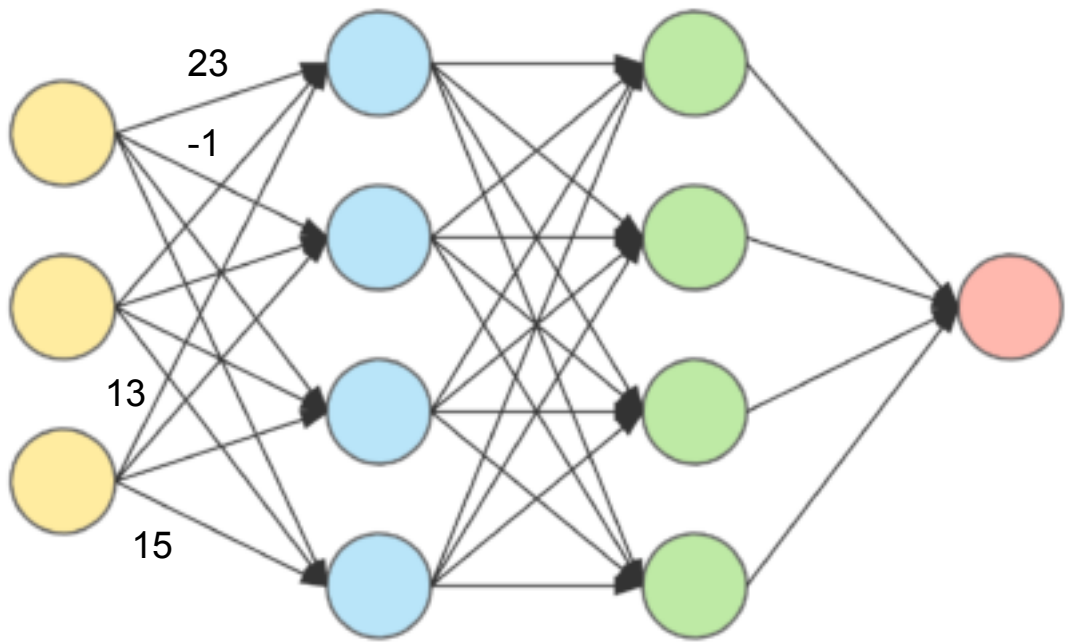


input layer

hidden layer 1

hidden layer 2

output layer

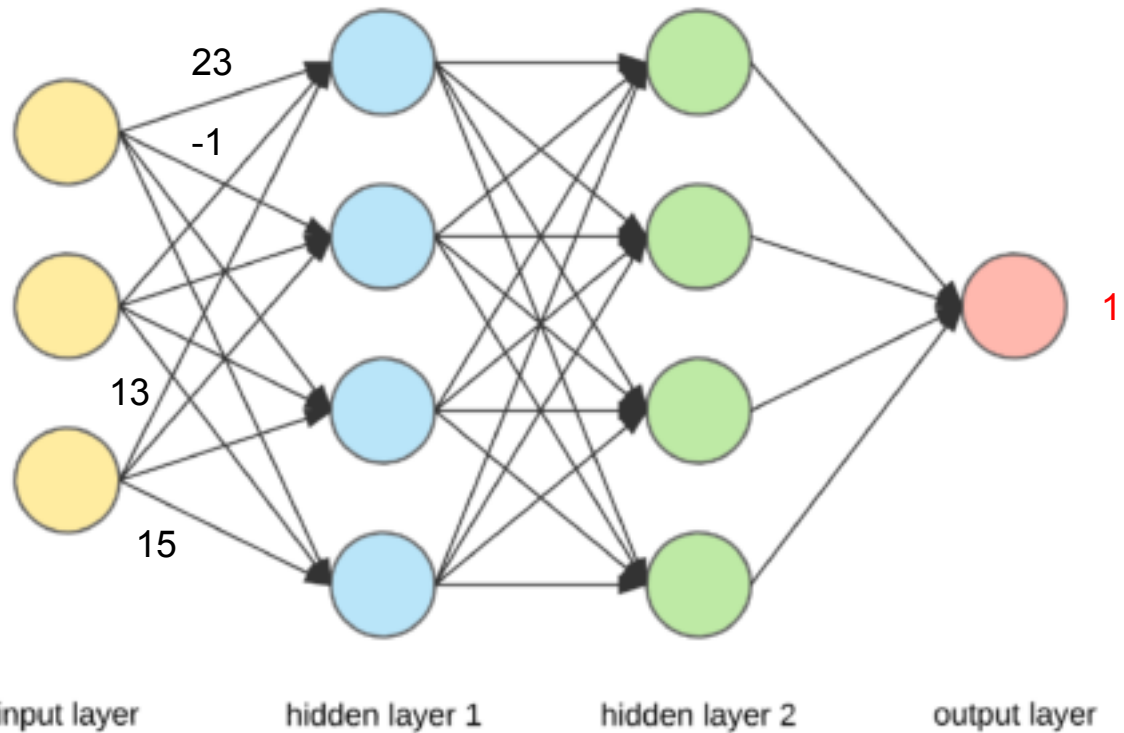


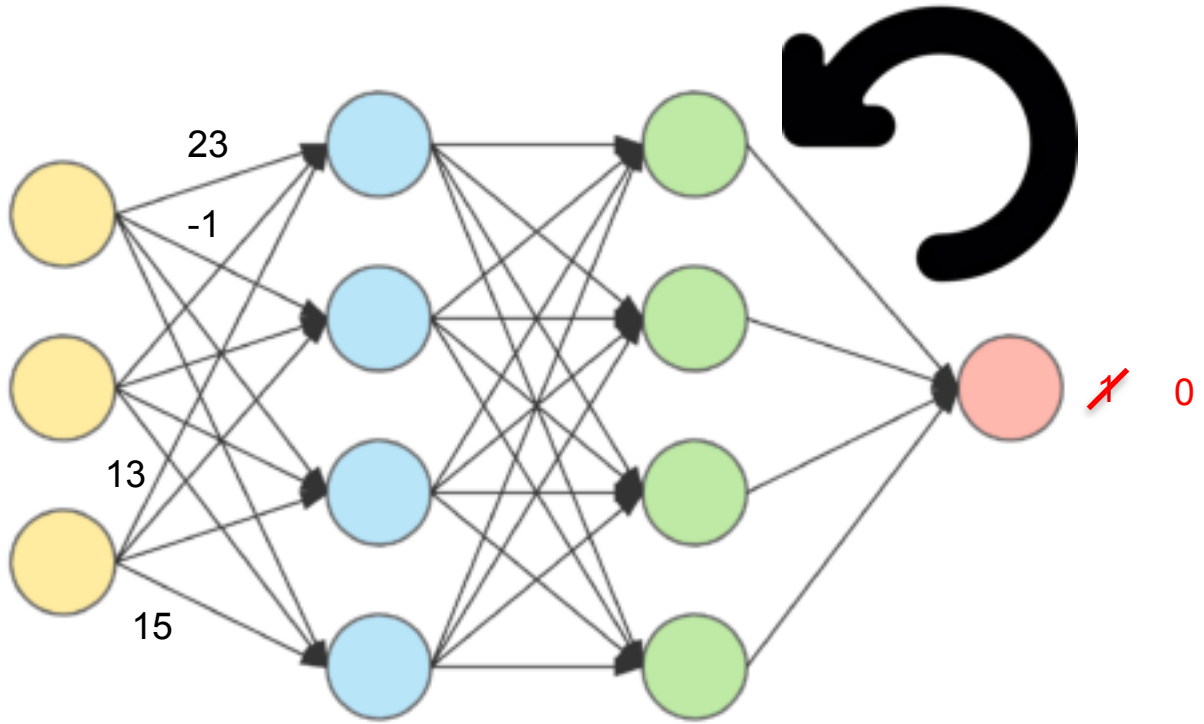
input layer

hidden layer 1

hidden layer 2

output layer





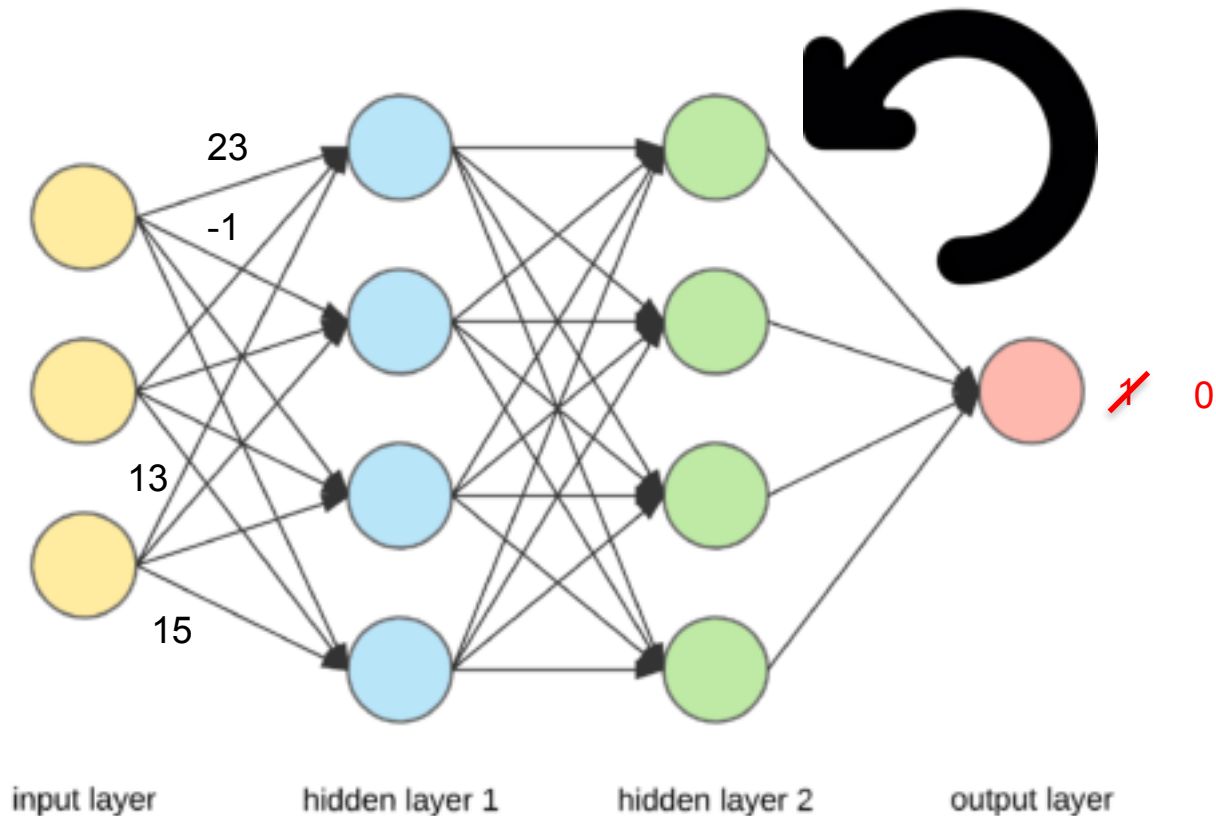
input layer

hidden layer 1

hidden layer 2

output layer

The Training







The TensorFlow.js logo features a stylized orange 'T' icon composed of three-dimensional blocks, followed by the text 'TensorFlow.js' in a sans-serif font. 'TensorFlow' is in orange and '.js' is in grey.

TensorFlow.js

The WebGL logo consists of the text 'WebGL' in a bold, dark red sans-serif font, with a dark red swoosh underline that starts under the 'W' and ends under the 'L'. A small 'TM' trademark symbol is located at the bottom right of the 'L'.

WebGL™

Wanna see some code?

Imports

```
import * as tf from '@tensorflow/tfjs';
```

```
<script src="https://unpkg.com/@tensorflow/tfjs"></script>
```



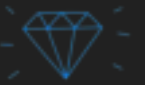
Trying/Loading models

```
await model.fit(inputs, labels, {
  batchSize,
  epochs,
  shuffle: true,
  callbacks: tfvis.show.fitCallbacks(
    { name: 'Training Performance' },
    ['loss', 'mse'],
    { height: 200, callbacks:
['onEpochEnd'] }
  )
});

await tf.loadModel('model.json');
```



Live Demo...



Demo Objectives:

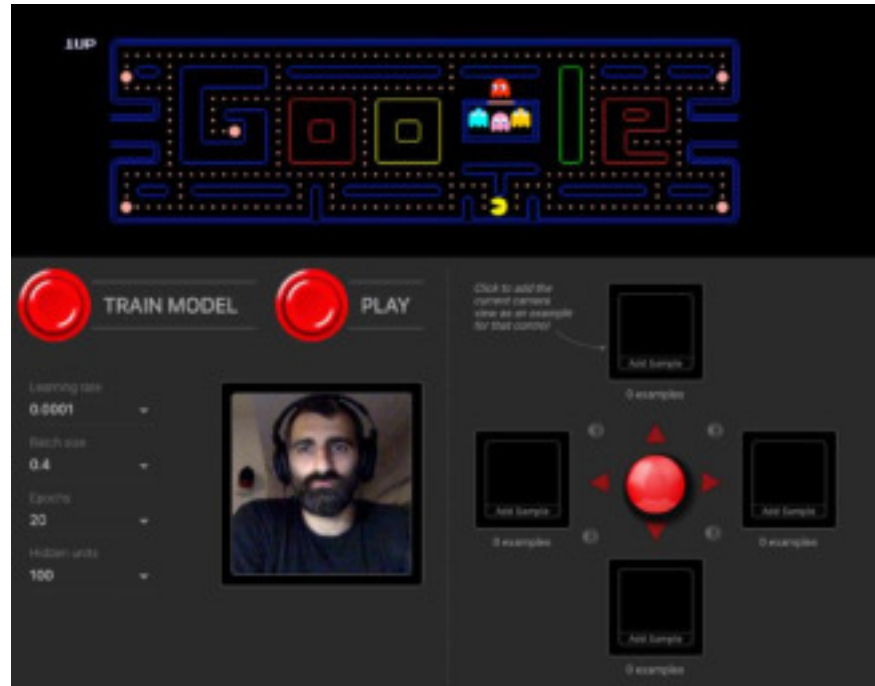
- Create an image classifier using tf.js:
 - Load a pre-trained model call mobilenet
 - Select image and try to predict what's in it
- Wire the webcam and predict what you see!



Who loves Packman?



Let's Plays Packman...in a different way...



Summary

- You don't have to be a data scientist to do AI any more!
 - TensorFlow.js is an independent package, you can run it in the browser with a matter of a 1 simple import
 - Is the future of FE developers is taking part in building AI based prediction models? YES!
-

Thank You

eliraneliassy



@eliraneliassy



eliran.eliassy@gmail.com

