

Materials:

<https://www.tensorflow.org/js/tutorials>
<https://ml5js.org/>
https://www.youtube.com/watch?v=i8NETqtGHms&ab_channel=Fireship
https://haosdent.gitbooks.io/tensorflow-document/api_docs/python/functional_ops.html
https://docs.w3cub.com/tensorflow~python/functional_ops
<https://furkangulsen.medium.com/what-is-a-tensor-ce8e78835d08>
[%20in%20Machine%20Learning%20models.](https://codecraft.tv/courses/tensorflowjs/tensors/what-are-tensors/#:~:text=Tensors%20are%20just%20buckets%20of,between)

Script:

Intro of TensorFlow and what it is primarily used for and what it is. A Tensor is an algebraic object that describes a linear relationship between sets of algebraic objects. An array or 1d tensor can be expanded into a matrix or a 2d tensor. A tensor (3d tensor) is an expanded version of a matrix and can be useful to store input and output data and everything in between in order to efficiently assist data processing for machine learning

How it works: Using these tensors as input you can create a graph of operations that you want to perform on the input tensor. The input flows through the series of operations on the graph and comes out with an output.

- More detailed examples of what TensorFlow is used for

```
// Step 1: Create an image classifier with MobileNet
const classifier = ml5.imageClassifier("MobileNet", onModelReady);

// Step 2: select an image
const img = document.querySelector("#myImage");

// Step 3: Make a prediction
let prediction = classifier.predict(img, gotResults);

// Step 4: Do something with the results!
function gotResults(err, results) { console.log(results); // all the
amazing things you'll add }
```

- Connect back to course (higher order functions)
- Describe why higher order functions make use of this library easier