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5 contributors

# Pre-trained TensorFlow.js models

This repository hosts a set of pre-trained models that have been ported to TensorFlow.js.

The models are hosted on NPM and unpkg so they can be used in any project out of the box. They can be used directly or used in a transfer learning setting with TensorFlow.js.

To find out about APIs for models, look at the README in each of the respective directories. In general, we try to hide tensors so the API can be used by non-machine learning experts.

For those interested in contributing a model, please file a [GitHub issue on tfjs](#) to gauge interest. We are trying to add models that complement the existing set of models and can be used as building blocks in other apps.

## Models

Type	Model	Demo	Details	Install
Images	MobileNet	source	Classify images with labels from the <a href="#">ImageNet database</a> .	<code>npm i @tensorflow-models/mobilenet</code>
	PoseNet	live	A machine learning model which allows for real-time human pose estimation in the browser. See a detailed description <a href="#">here</a> .	<code>npm i @tensorflow-models/posenet</code>
		source		
	Coco SSD	source	Object detection model that aims to localize and identify multiple objects in a single image. Based on the <a href="#">TensorFlow object detection API</a> .	<code>npm i @tensorflow-models/coco-ssd</code>
	BodyPix	live	Real-time person and body part segmentation in the browser using TensorFlow.js.	<code>npm i @tensorflow-models/body-pix</code>
		source		
	DeepLab v3	source	Semantic segmentation	<code>npm i @tensorflow-models/deeplab</code>
Audio	Speech Commands	live	Classify 1 second audio snippets from the <a href="#">speech commands dataset</a> .	<code>npm i @tensorflow-models/speech-commands</code>
		source		
Text	Universal Sentence Encoder	source	Encode text into a 512-dimensional embedding to be used as inputs to natural language processing tasks such as sentiment classification and textual similarity.	<code>npm i @tensorflow-models/universal-sentence-encoder</code>
	Text Toxicity	live	Score the perceived impact a comment might have on a conversation, from "Very toxic" to "Very healthy".	<code>npm i @tensorflow-models/toxicity</code>
		source		
General Utilities	KNN Classifier	source	This package provides a utility for creating a classifier using the K-Nearest Neighbors algorithm. Can be used for transfer learning.	<code>npm i @tensorflow-models/knn-classifier</code>

## Development

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You can run the unit tests for any of the models by running the following inside a directory:

```
yarn test
```

New models should have a test NPM script (see [this](#) `package.json` and `run_tests.ts` [helper](#) for reference).

To run all of the tests, you can run the following command from the root of this repo:

```
yarn presubmit
```