

tensorflow / tfjs-examples

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173

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Code

Pull requests13

Security

Insights

Examples built with TensorFlow.js <https://js.tensorflow.org/>

288 commits

31 branches

0 releases

39 contributors

Apache-2.0

Branch: master

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



























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kangyizhang

Add a new Node.js example: abalone (#328)

Latest commit d157514 14 hours ago

	.vscode	snapshot	2 years ago
	abalone-node	Add a new Node.js example: abalone (#328)	14 hours ago
	addition-rnn-webworker	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	addition-rnn	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	baseball-node	Bump lodash from 4.17.11 to 4.17.14 in /baseball-node (#297)	2 months ago
	boston-housing	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	cart-pole	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	chrome-extension	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	custom-layer	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	data-csv	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	data-generator	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	date-conversion-attention	Bump lodash from 4.17.11 to 4.17.14 in /date-conversion-attention (#298)	last month
	electron	[electron] Add electron example (#288)	2 months ago
	fashion-mnist-vae	Bump lodash from 4.17.11 to 4.17.13 in /fashion-mnist-vae (#303)	2 months ago
	getting-started	Update the getting started example to actually log the values from th...	10 months ago
	intent-classifier	Bump lodash from 4.17.11 to 4.17.14 in /intent-classifier (#299)	last month
	iris-fitDataset	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	iris	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	jena-weather	Bump lodash from 4.17.11 to 4.17.14 in /jena-weather (#302)	last month
	lstm-text-generation	Add webworker example (#322)	23 days ago
	mnist-acgan	Bump lodash from 4.17.11 to 4.17.14 in /mnist-acgan (#305)	2 months ago
	mnist-core	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	mnist-node	Remove package-lock.json in mnist-node example (#324)	15 days ago
	mnist-transfer-cnn	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	mnist	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	mobilenet	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	polynomial-regression-core	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	polynomial-regression	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	quantization	Bump lodash from 4.17.11 to 4.17.14 in /quantization (#311)	2 months ago
	sentiment	Bump lodash from 4.17.11 to 4.17.14 in /sentiment (#315)	2 months ago
	shared	Fix security warnings. (#291)	2 months ago
	simple-object-detection	Bump lodash from 4.17.11 to 4.17.14 in /simple-object-detection (#314)	2 months ago
	snake-dqn	[snake-dqn] fix: typo (#325)	7 days ago
	translation	Bump lodash from 4.17.11 to 4.17.14 in /translation (#320)	2 months ago
	tsne-mnist-canvas	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	visualize-convnet	Bump lodash from 4.17.11 to 4.17.14 in /visualize-convnet (#316)	2 months ago
	webcam-transfer-learning	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	website-phishing	Upgrade browser examples to tfjs 1.2.8 (#326)	4 days ago
	.gitignore	Add yalc.lock to .gitignore (#139)	11 months ago
	CONTRIBUTING.md	snapshot	2 years ago
	LICENSE	snapshot	2 years ago
	README.md	Add a new Node.js example: abalone (#328)	14 hours ago
	cloudbuild.yml	Add 'yarn presubmit' command and cloudbuild.yml (#269)	4 months ago
	deploy.sh	Don't remove subdirs in the example folder (#240)	6 months ago
	package.json	Add 'yarn presubmit' command and cloudbuild.yml (#269)	4 months ago
	presubmit.ts	Add 'yarn presubmit' command and cloudbuild.yml (#269)	4 months ago
	test_util.js	[date-conversion-attention] Initial check-in of date-conversion-atten...	7 months ago
	update-tfjs-version	Upgrade browser-only examples to tfjs 1.2.2 (#283)	2 months ago
	yarn.lock	Add 'yarn presubmit' command and cloudbuild.yml (#269)	4 months ago

README.md

## TensorFlow.js Examples

This repository contains a set of examples implemented in [TensorFlow.js](#).

Each example directory is standalone so the directory can be copied to another project.

## Overview of Examples

Example name	Demo link	Input data type	Task type	Model type	Training	Inference	API type	Save-load operation:
<a href="#">abalone-node</a>		Numeric	Loading data from local file and training in Node.js	Multilayer perceptron	Node.js	Node.js	Layers	Saving to filesystem and loading in Node.js
<a href="#">addition-rnn</a>		Text	Sequence-to-sequence	RNN: SimpleRNN, GRU and LSTM	Browser	Browser	Layers	
<a href="#">addition-rnn-webworker</a>		Text	Sequence-to-sequence	RNN: SimpleRNN, GRU and LSTM	Browser: Web Worker	Browser: Web Worker	Layers	
<a href="#">baseball-node</a>		Numeric	Multiclass classification	Multilayer perceptron	Node.js	Node.js	Layers	
<a href="#">boston-housing</a>		Numeric	Regression	Multilayer perceptron	Browser	Browser	Layers	
<a href="#">cart-pole</a>			Reinforcement learning	Policy gradient	Browser	Browser	Layers	IndexedDE
<a href="#">chrome-extension</a>		Image	(Deploying TF.js in Chrome extension)	Convnet		Browser		
<a href="#">custom-layer</a>			(Defining a custom Layer subtype)			Browser	Layers	
<a href="#">data-csv</a>			Building a tf.data.Dataset from a remote CSV					
<a href="#">data-generator</a>			Building a tf.data.Dataset using a generator	Regression	Browser	Browser	Layers	
<a href="#">date-conversion-attention</a>		Text	Text-to-text conversion	Attention mechanism, RNN	Node.js	Browser and Node.js	Layers	Saving to filesystem and loading in browser
<a href="#">electron</a>		Image	(Deploying TF.js in Electron-based desktop apps)	Convnet		Node.js		
<a href="#">fashion-mnist-vae</a>		Image	Generative	Variational autoencoder (VAE)	Node.js	Browser	Layers	Export trained model from tfjs-node and load it in browser
<a href="#">iris</a>		Numeric	Multiclass classification	Multilayer perceptron	Browser	Browser	Layers	
<a href="#">iris-fitDataset</a>		Numeric	Multiclass classification	Multilayer perceptron	Browser	Browser	Layers	
<a href="#">jena-weather</a>		Sequence	Sequence-to-prediction	MLP and RNNs	Browser and Node	Browser	Layers	
<a href="#">lstm-text-generation</a>		Text	Sequence prediction	RNN: LSTM	Browser	Browser	Layers	IndexedDE
<a href="#">mnist</a>		Image	Multiclass classification	Convolutional neural network	Browser	Browser	Layers	
<a href="#">mnist-acgan</a>		Image	Generative Adversarial Network (GAN)	Convolutional neural network; GAN	Node.js	Browser	Layers	Saving to filesystem from Node.js and loading it in the browser
<a href="#">mnist-core</a>		Image	Multiclass classification	Convolutional neural network	Browser	Browser	Core (Ops)	
<a href="#">mnist-node</a>		Image	Multiclass classification	Convolutional neural network	Node.js	Node.js	Layers	Saving to filesystem
<a href="#">mnist-transfer-cnn</a>		Image	Multiclass classification (transfer learning)	Convolutional neural network	Browser	Browser	Layers	Loading pretrained model
<a href="#">mobilenet</a>		Image	Multiclass classification	Convolutional neural network		Browser	Layers	Loading pretrained model
<a href="#">polynomial-regression</a>		Numeric	Regression	Shallow neural network	Browser	Browser	Layers	
<a href="#">polynomial-regression-core</a>		Numeric	Regression	Shallow neural network	Browser	Browser	Core (Ops)	
<a href="#">quantization</a>		Various	Demonstrates the effect of post-training weight quantization	Various	Node.js	Node.js	Layers	
<a href="#">sentiment</a>		Text	Sequence-to-binary-prediction	LSTM, 1D convnet	Node.js or Python	Browser	Layers	Load model from Keras and tfjs-node
<a href="#">simple-object-detection</a>		Image	Object detection	Convolutional neural network (transfer learning)	Node.js	Browser	Layers	Export trained model from tfjs-node and load it in browser
<a href="#">snake-dqn</a>			Reinforcement learning	Deep Q- Network (DQN)	Node.js	Browser	Layers	Export trained model from tfjs-node and load it in browser
<a href="#">translation</a>		Text	Sequence-to-sequence	LSTM encoder and decoder	Node.js or Python	Browser	Layers	Load model converted from Keras
<a href="#">tsne-mnist-canvas</a>			Dimension reduction and data visualization	tSNE	Browser	Browser	Core (Ops)	
<a href="#">webcam-transfer-learning</a>		Image	Multiclass classification (transfer learning)	Convolutional neural network	Browser	Browser	Layers	Loading pretrained model
<a href="#">website-phishing</a>		Numeric	Binary classification	Multilayer perceptron	Browser	Browser	Layers	

## Dependencies

Except for `getting-started`, all the examples require the following dependencies to be installed.

- Node.js version 8.9 or higher
- NPM cli OR Yarn

## How to build an example

`cd` into the directory

If you are using `yarn`:

```
cd mnist-core
yarn
yarn watch
```

If you are using `npm`:

```
cd mnist-core
npm install
npm run watch
```

### Details

The convention is that each example contains two scripts:

- `yarn watch` or `npm run watch`: starts a local development HTTP server which watches the filesystem for changes so you can edit the code (JS or HTML) and see changes when you refresh the page immediately.
- `yarn build` or `npm run build`: generates a `dist/` folder which contains the build artifacts and can be used for deployment.

## Contributing

If you want to contribute an example, please reach out to us on [Github issues](#) before sending us a pull request as we are trying to keep this set of examples small and highly curated.

### Running Presubmit Tests

Before you send a pull request, it is a good idea to run the presubmit tests and make sure they all pass. To do that, execute the following commands in the root directory of `tfjs-examples`:

```
yarn
yarn presubmit
```

The `yarn presubmit` command executes the unit tests and lint checks of all the examplmes that contain the `yarn test` and/or `yarn lint` scripts. You may also run the tests for individual exampls by `cd`'ing into their respective subdirectory and executing `yarn`, followed by `yarn test` and/or `yarn lint`.