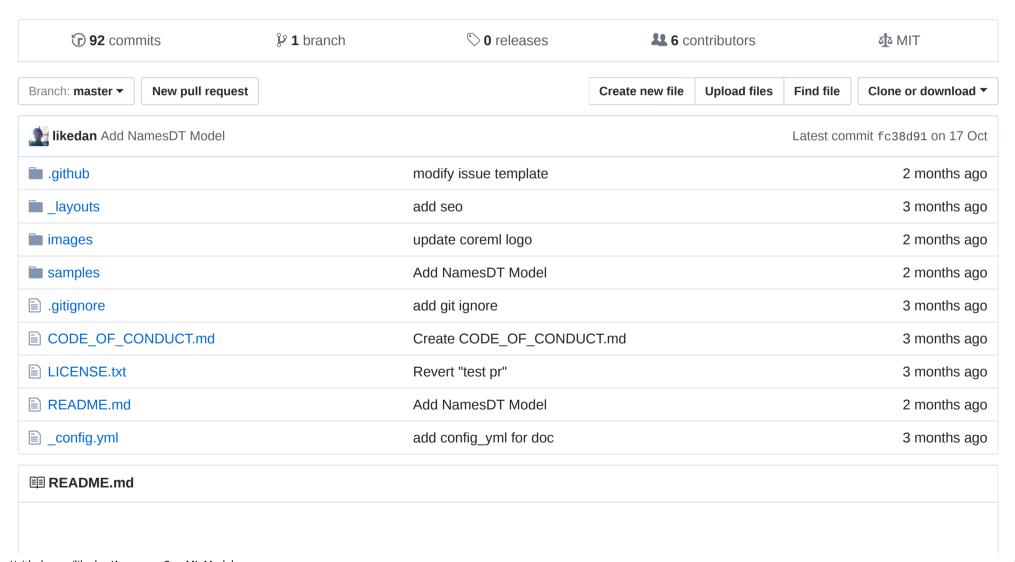
## likedan / Awesome-CoreML-Models

## Largest list of models for Core ML (for iOS 11+)

#coreml #coreml-model #apple #machine-learning #curated-list #coreml-framework #coreml-models #coremltools #awesome-list #models #model #download #awesome #core-ml #ml #caffe #caffemodel #tensorflow-models #ios #ios11





# **Awesome Core ML Models**

Since iOS 11, Apple released Core ML framework to help developers integrate machine learning models into applications. The official documentation

We've put up the largest collection of machine learning models in Core ML format, to help iOS, macOS, tvOS, and watchOS developers experiment with machine learning techniques. We've created a site with better visualization of the models CoreML.Store, and are working on more advance features.

If you've converted a Core ML model, feel free to submit an issue.



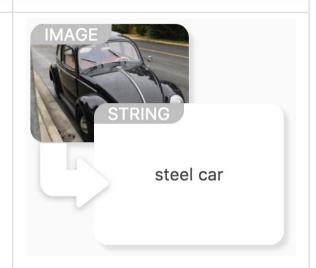
# **Models**

## **Image Processing**

Models that takes image data as input and output useful information about the image.







## **MobileNet**

The network from the paper 'MobileNets: Efficient Convolutional Neural Networks for Mobile Vision Applications', trained on the ImageNet dataset.

Download | Demo | Reference

## GoogLeNetPlaces

Detects the scene of an image from 205 categories such as airport, bedroom, forest, coast etc.

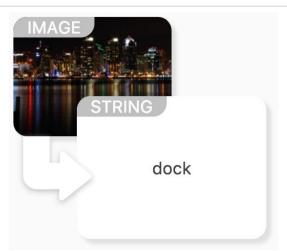
Download | Demo | Reference

## Inceptionv3

Detects the dominant objects present in an image from a set of 1000 categories such as trees, animals, food, vehicles, person etc. The top-5 error from the original publication is 5.6%.

Download | Demo | Reference







#### Resnet50

Detects the dominant objects present in an image from a set of 1000 categories such as trees, animals, food, vehicles, person etc. The top-5 error from the original publication is 7.8%.

Download | Demo | Reference

## VGG16

Detects the dominant objects present in an image from a set of 1000 categories such as trees, animals, food, vehicles, person etc. The top-5 error from the original publication is 7.4%.

Download | Demo | Reference

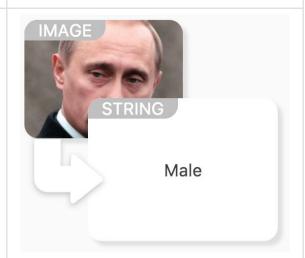
## CarRecognition

Predict the brand & model of a car.

Download | Demo | Reference







## **TinyYOLO**

The Tiny YOLO network from the paper 'YOLO9000: Better, Faster, Stronger' (2016), arXiv:1612.08242

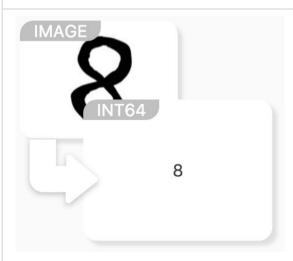
Download | Demo | Reference

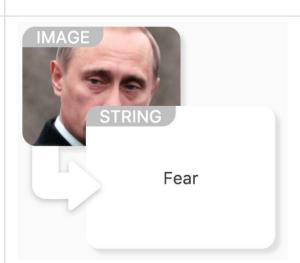
## **AgeNet**

Age Classification using Convolutional Neural Networks Download | Demo | Reference

### GenderNet

Gender Classification using Convolutional Neural Networks Download | Demo | Reference







#### **MNIST**

Predicts a handwritten digit.

Download | Demo | Reference

#### **CNNEmotions**

Emotion Recognition in the Wild via Convolutional Neural Networks and Mapped Binary Patterns

Download | Demo | Reference

#### **VisualSentimentCNN**

Fine-tuning CNNs for Visual Sentiment Prediction

Download | Demo | Reference







#### Food101

This model takes a picture of a food and predicts its name

Download | Demo | Reference

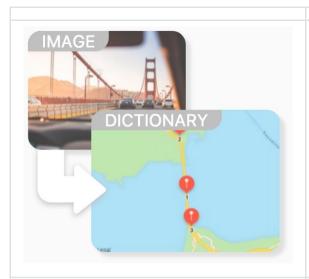
### Oxford102

Classifying images in the Oxford 102 flower dataset with CNNs

Download | Demo | Reference

## **FlickrStyle**

Finetuning CaffeNet on Flickr Style Download | Demo | Reference





great model to come

#### RN1015k500

Predict the location where a picture was taken.

Download | Demo | Reference

## **Nudity**

Classifies an image either as NSFW (nude) or SFW (not nude)

Download | Demo | Reference

# **Style Transfer**

Models that transform image to specific style.







## HED\_so

Holistically-Nested Edge Detection. Side outputs

Download | Demo | Reference

## **FNS-Candy**

Feedforward style transfer https://github.com/jcjohnson/fastneural-style Download | Demo | Reference

## **FNS-Feathers**

Feedforward style transfer https://github.com/jcjohnson/fastneural-style Download | Demo | Reference







#### **FNS-La-Muse**

Feedforward style transfer https://github.com/jcjohnson/fastneural-style

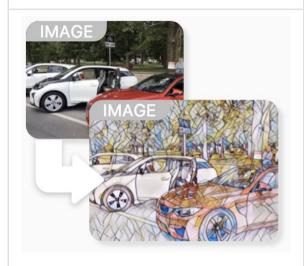
Download | Demo | Reference

#### **FNS-The-Scream**

Feedforward style transfer https://github.com/jcjohnson/fastneural-style Download | Demo | Reference

#### **FNS-Udnie**

Feedforward style transfer https://github.com/jcjohnson/fastneural-style Download | Demo | Reference





great model to come

#### **FNS-Mosaic**

Feedforward style transfer

https://github.com/jcjohnson/fastneural-style

Download | Demo | Reference

### AnimeScale2x

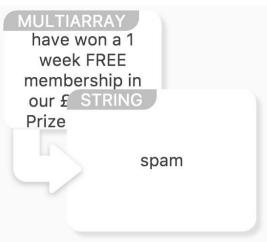
Process a bicubic-scaled anime-style artwork

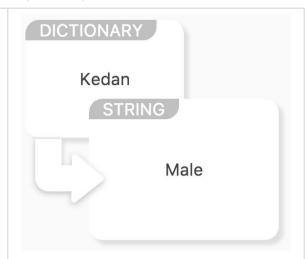
Download | Demo | Reference

# **Text Analysis**

Models that takes text data as input and output useful information about the text.







## **SentimentPolarity**

Sentiment polarity LinearSVC.

Download | Demo | Reference

## MessageClassifier

Detect whether a message is spam.

Download | Demo | Reference

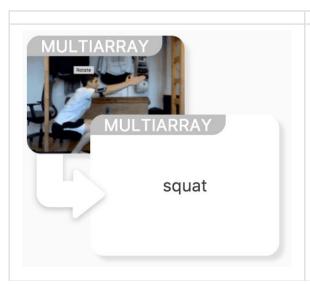
#### **NamesDT**

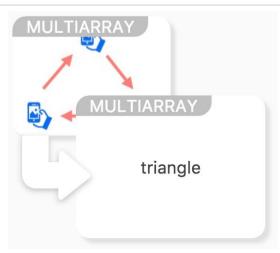
Gender Classification using

DecisionTreeClassifier

Download | Demo | Reference

## **Others**





great model to come

|--|

# **Supported formats**

List of model formats that could be converted to Core ML with examples

- Caffe
- Keras
- XGBoost
- Scikit-learn
- MXNet
- LibSVM
- Torch7

# The Gold

Collections of machine learning models that could be converted to Core ML

- Caffe Model Zoo Big list of models in Caffe format.
- TensorFlow Models Models for TensorFlow.
- TensorFlow Slim Models Another collection of TensorFlow Models.
- MXNet Model Zoo Collection of MXNet models.

Individual machine learning models that could be converted to Core ML. We'll keep adjusting the list as they become converted.

- LaMem Score the memorability of pictures.
- ILGnet The aesthetic evaluation of images.
- Colorization Automatic colorization using deep neural networks.
- Illustration2Vec Estimating a set of tags and extracting semantic feature vectors from given illustrations.
- CTPN Detecting text in natural image.
- Image Analogy Find semantically-meaningful dense correspondences between two input images.
- iLID Automatic spoken language identification.
- Fashion Detection Cloth detection from images.
- Saliency The prediction of salient areas in images has been traditionally addressed with hand-crafted features.
- Face Detection Detect face from image.
- mtcnn Joint Face Detection and Alignment.
- deephorizon Single image horizon line estimation.

# **Contributing and License**

- See the guide
- Distributed under the MIT license. See LICENSE for more information.