

DEEP TUTORIAL:

CIFAR10

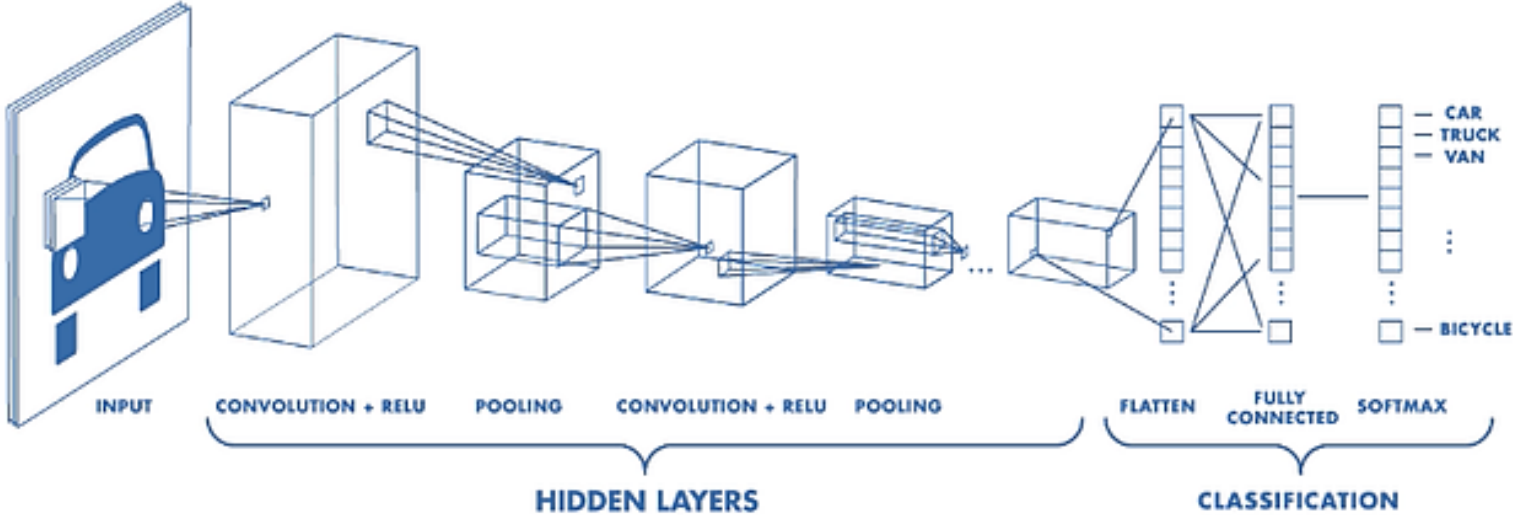
Ibergrid2019
Santiago de Compostela
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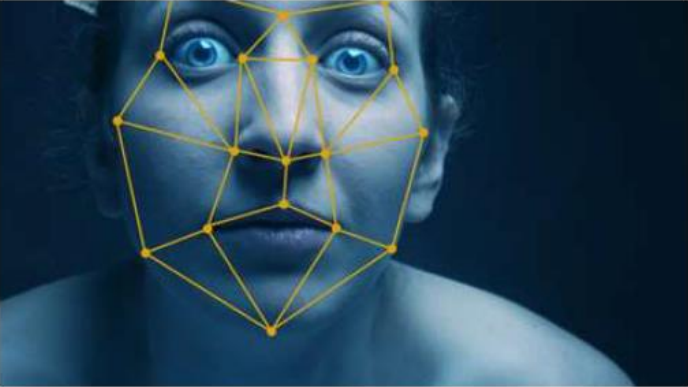
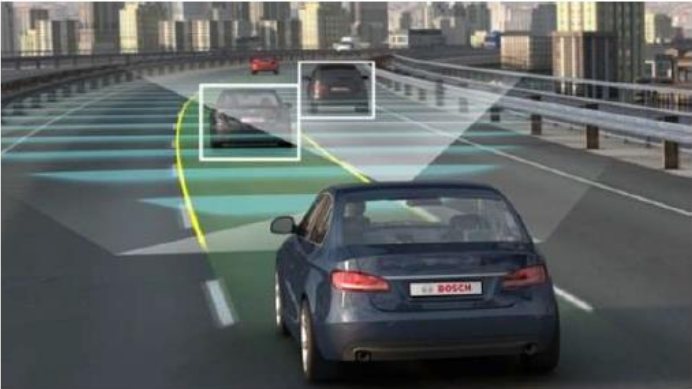
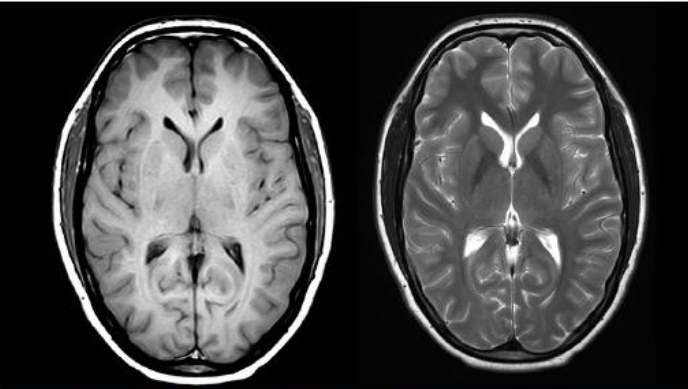


Convolutional Neural Networks

The convolutional neural networks (CNN) are a special type of Deep Neural Networks that currently represent the state of the art in computer vision



Use cases



CIFAR10

- We will be using the dataset CIFAR10 in order to perform image classification using CNN
- The CIFAR-10 dataset contains 60,000 32x32 color images in 10 different classes.
- The 10 different classes represent airplanes, cars, birds, cats, deer, dogs, frogs, horses, ships, and trucks.
- There are 6,000 images of each class.
- We will be using a reduced set of the original images since we don't have a GPU

airplane

automobile

bird

cat

deer

dog

frog

horse

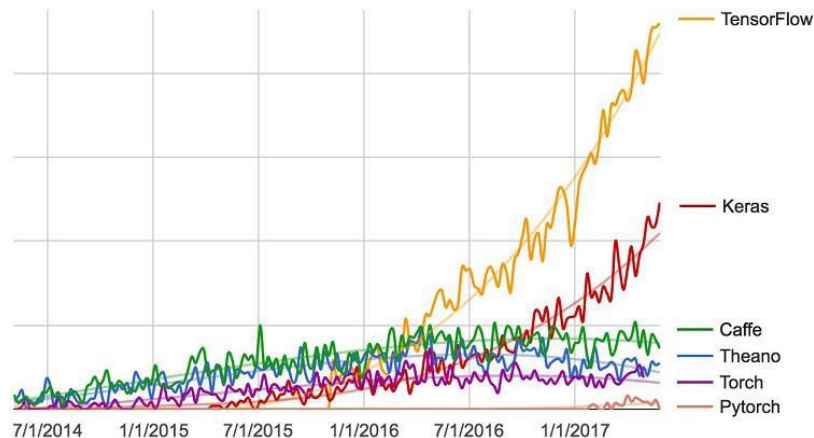
ship

truck



The tools

- We will be using Keras
- Keras is an open-source neural-network library written in Python.
- We will be running Keras on top of TensorFlow



Notebook to follow the tutorial



[wget https://raw.githubusercontent.com/deephdc/DEEP-tutorial-cifar10/master/DEEP-tutorial-CIFAR.ipynb](https://raw.githubusercontent.com/deephdc/DEEP-tutorial-cifar10/master/DEEP-tutorial-CIFAR.ipynb)

Thank you
Any Questions?



<https://deep-hybrid-datacloud.eu>



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