

Section 23

Google colab

access to google
CPU + TPU

Like Jupyter Notebook.

Drive \rightarrow New \rightarrow More \rightarrow Colaboratory

Runtime menu allows you
to use TPU + GPU

\rightarrow Tensor
 processing
 unit
 \rightarrow change runtime type

Top Right you can go local
instead of cloud.

Numpy, Scipy, Matplotlib, Pandas, Scikit.

1. Numpy

\rightarrow Matrix arithmetic

\rightarrow Tensors and array

\rightarrow Vectors + Matrix

\rightarrow Arithmetic (+, -, *, /)

\rightarrow np.dot (Matrix Mult)

\rightarrow Inner product

\rightarrow Elementwise Mult (*)

2. Matplotlib.

 line charts + scatterplot

3. Pandas

 Read CSV

4. Scipy

\rightarrow power version of Numpy

5. Scikit learn

\rightarrow ML

\rightarrow Classification + Regression

\rightarrow Shape of data

 x = Our \rightarrow Input Features

 y = Target

6. Steps of ML

 1. Load data

 2. Split into train + test (opt)

 3. Build Model

\rightarrow oop

 4. Fit Model

\rightarrow Not just Model. fit

 5. evaluate Model

\rightarrow Hold.out

 6. Predict

\rightarrow need to convert between
 Numpy array and TF.tensor.