

Week 1: Deep Learning Fundamentals

This week's motive is to build your basic understanding of Deep learning while brushing up your basics of ML, and also to learn how to use the Tensorflow library in implementing neural networks.

Topics:

1. Python Basics:

Refer to the Colab File- [Introduction To Python and Numpy.ipynb](#)
Make a copy of the colab file in your drive and start working on it.

2. ML Basics:

Brush up your basic ML knowledge.

Know about the three subparts of ML and important terms used in ML.

[Introduction to Machine Learning | Google for Developers](#)

▶ Machine Learning Explained in 100 Seconds

3. Deep Learning Basics:

<https://www.geeksforgeeks.org/introduction-deep-learning/>

▶ Deep Learning Crash Course for Beginners

4. Math behind Backpropagation and Gradient Descent:

▶ But what is a neural network? | Chapter 1, Deep learning

▶ Gradient descent, how neural networks learn | Chapter 2, Deep learning

▶ What is backpropagation really doing? | Chapter 3, Deep learning

5. Tensorflow Tutorial for Deep Learning:

▶ Tensorflow Tutorial for Python in 10 Minutes

If you have any doubts regarding any topics, then feel free to ask in the Whatsapp group.