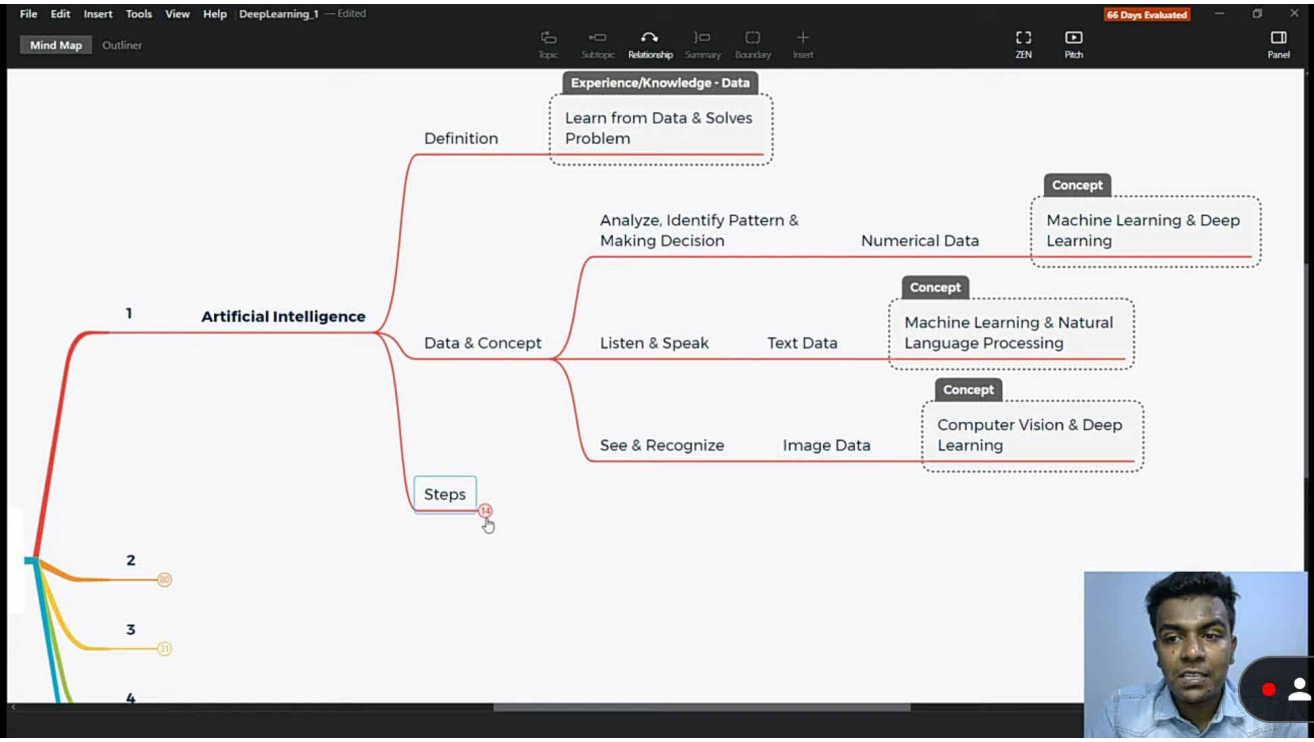
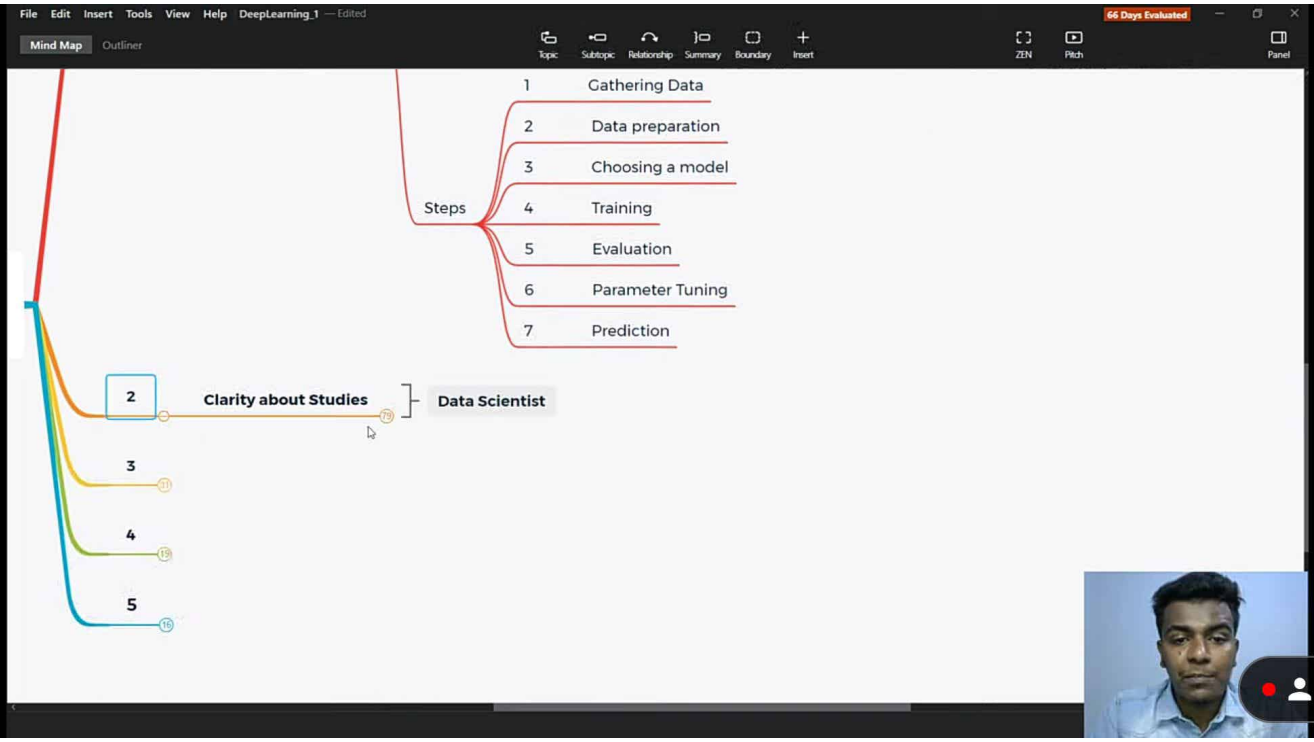

File Edit Insert Tools View Help DeepLearning_1 — Edited
66 Days Evaluated
Mind Map
Outliner
Topic
Subtopic
Relationship
Summary
Boundary
Insert
ZEN
Pitch
Panel
1
Artificial Intelligence
Definition
Experience/Knowledge - Data
Learn from Data & Solves Problem
Data & Concept
Analyze, Identify Pattern & Making Decision
Numerical Data
Concept
Machine Learning & Deep Learning
Listen & Speak
Text Data
Concept
Machine Learning & Natural Language Processing
See & Recognize
Image Data
Concept
Computer Vision & Deep Learning
Steps
2
3
4
503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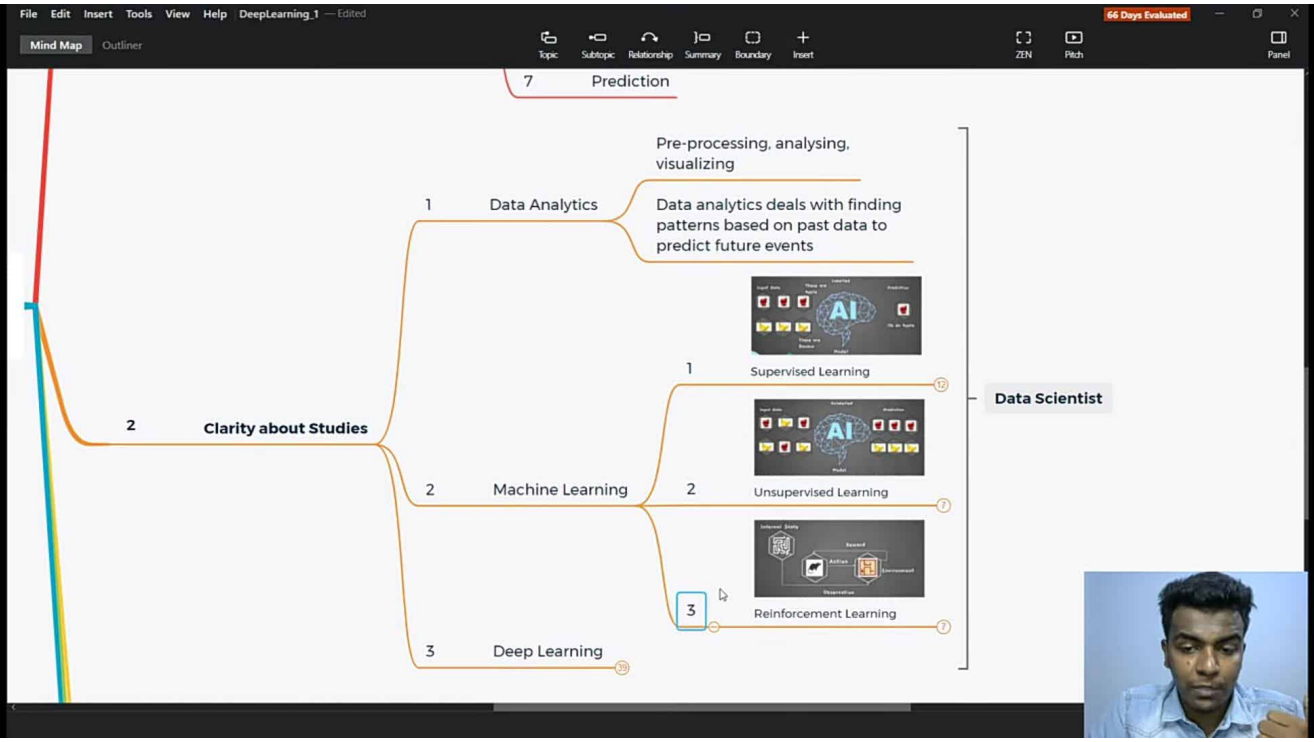
Steps
1 Gathering Data
2 Data preparation
3 Choosing a model
4 Training
5 Evaluation
6 Parameter Tuning
7 Prediction
2
Clarity about Studies
Data Scientist
3
4
5
503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7 Prediction
Pre-processing, analysing, visualizing
1 Data Analytics
Data analytics deals with finding patterns based on past data to predict future events
AI
1 Supervised Learning
2 Clarity about Studies
2 Machine Learning
2 Unsupervised Learning
3
Reinforcement Learning
3 Deep Learning
Data Scientist

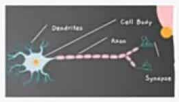
File Edit Insert Tools View Help DeepLearning_1 — Edited

66 Days Evaluated

Mind Map Outliner

Topic Subtopic Relationship Summary Boundary Insert ZEN Pitch Panel

Structure



Structure

Neuron

Neuron takes input and do some function to give the output

Function going to be the Mathematical function

Structure

Layer

Layer is Made up of Nodes of Neuron & Weights

Structure

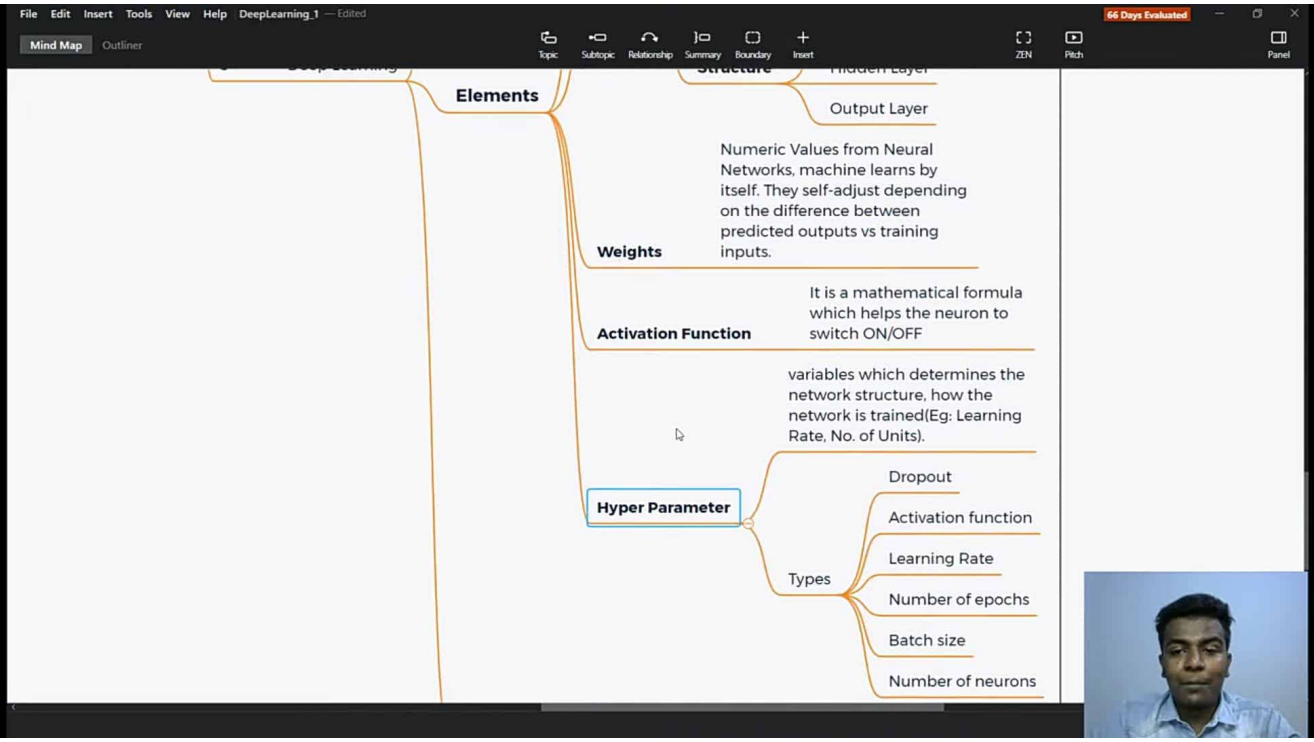
Input Layer

Hidden Layer

3 Deep Learning

Elements

Data Scientist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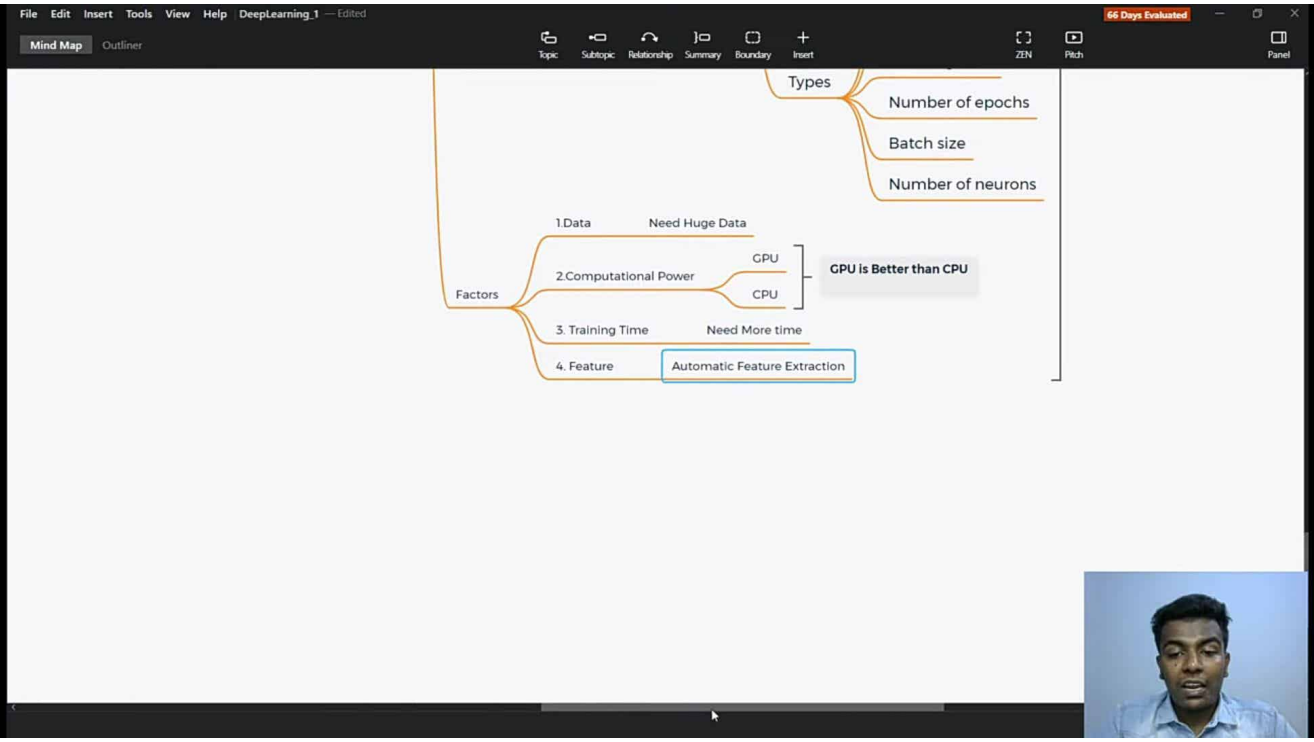
Elements
Output Layer
Numeric Values from Neural Networks, machine learns by itself. They self-adjust depending on the difference between predicted outputs vs training inputs.
Weights
It is a mathematical formula which helps the neuron to switch ON/OFF
Activation Function
variables which determines the network structure, how the network is trained(Eg: Learning Rate, No. of Units).
Hyper Parameter
Types
Dropout
Activation function
Learning Rate
Number of epochs
Batch size
Number of neurons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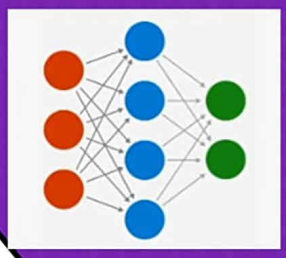
Types
Number of epochs
Batch size
Number of neurons
Factors
1.Data
Need Huge Data
2.Computational Power
GPU
CPU
GPU is Better than CPU
3. Training Time
Need More time
4. Feature
Automatic Feature Extraction

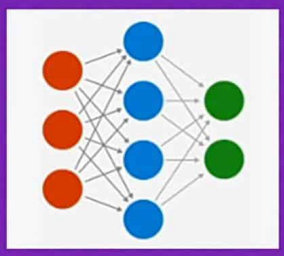
Deep Learning Terminology - 1

Neuron

- Nodes in which Data & Computations flow
- It is a mathematical function takes one or more inputs that are multiplied by values called "**weights**" and added together, this value is then passed to a non-linear function, known as an **activation function**, to become the neuron's output



Deep Learning Terminology - 2



Weights

- Values that control the strength of the connection between two neurons
- Inputs multiplied by weights, and that defines how much influence the input will have on the output
- when the inputs are transmitted between neurons, the weights are applied to the inputs along with an additional value (the bias)

Deep Learning Terminology - 3

Synapse

- Synapses are like roads in a neural network
- Each connection between two neurons has a unique synapse with a unique weight attached to it.
- In order to get from one neuron to another, you have to travel along the synapse paying the “toll” (weight) along the way