

Ignacio Devega

A06 TensorFlow Playground Presentation

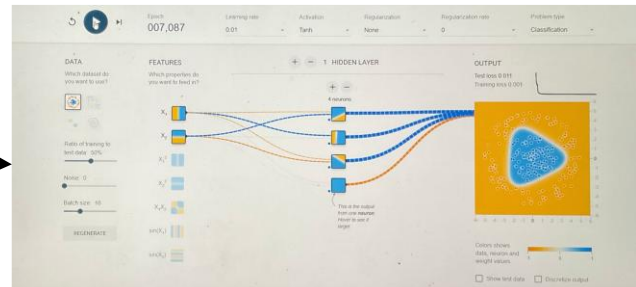
Professor Anna Devarakonda

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### Task 1- Activation Functions with one hidden layer - Tanh

- the minimum range is -1
- zero centered activation function

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### Task 1- Activation Functions with one hidden layer - Sigmoid

- known as the logistic function
- the range is between 0 to 1

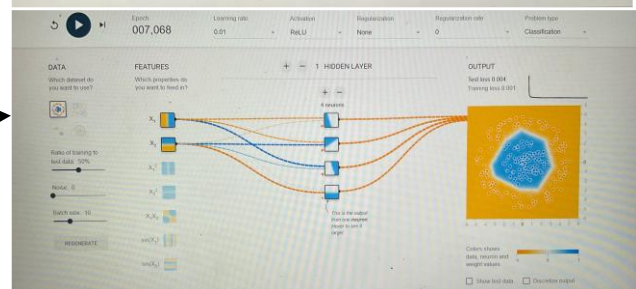
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### Task 1- Activation Functions with one hidden layer – ReLu

- The best and the most developed
- the range is from zero to infinity

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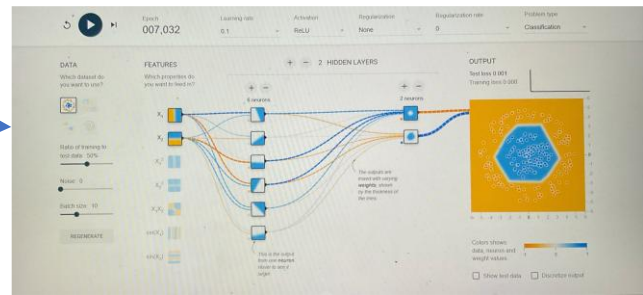
Task 2 – Changing the number of neurons in the hidden layer and the number of hidden layers makes the network learn more complex patterns. The performance becomes better but overfitting might happen as a problem.

-AI Overview



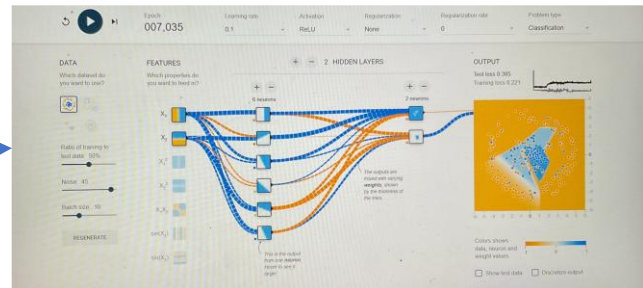
Task 3 – Learning rate determines the speed of the algorithm. If it's high, there will be more updates. When it's low, it makes smaller adjustments.

-AI Overview



Task 4 – Data noise has an impact on the production. It may lower the validity but it can also make the network learn powerful attributes

AI Overview



Task 5 – Some Datasets that are available in TensorFlow Playground like:

- Wake Vision provides fine-grained standard and thorough test for real world applications.
- MLSysBook.AI:Principles and Practices of Machine Learning Systems Engineering

References:

Aitude.com

AI Overview

TensorFlow Playground