4-class problem

Experiment 1

Optimizer – Adam

* Learning rates – 0.1, 0.01, 0.001, 0.0001
* Loss – Categorical cross entropy

Batch size – 128, 256, 512, 1024

Epochs – 10, 100, 1000, 2000

Metric – Accuracy

* Early stopping
  + Monitor – val\_loss
  + Min\_delta=0
  + Patience=2
  + Mode=’auto’

Layers

* Regularization – Dropout and L1 or L2
  + Lambda = 0.1, 0.01, 0.001
* Hidden layers
  + 1 or 2
  + 2 to double number of input neurons
  + Softmax, sigmoid, tanh, ReLU
* Output layer – Softmax