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| **Experiment No.** | **Brief description about the experiment** | **Number of slots** |
|  | Introduction to Scikit and TensorFlow  Simple programs with TensorFlow | 1 |
|  | Linear Regression  Nonlinear Regression  Logistic Regression  Activation Functions | 1 |
|  | Training a multi-layer perceptron using API’s | 1 |
|  | Training a neural network – construction, execution and use of neural network. | 1 |
|  | Training Neural Networks - a sequence classifier and to predict time series. | 1 |
|  | Classification of Human Facial Expressions using Neural Networks | 1 |
|  | Principal Component Analysis on   * simple matrix * on iris dataset | 1 |
|  | Course Project : Students in a group of four shall implement machine learning solution to a real world problem using Scikit  Ex:   * Sentiment Classification using LSTM , encoder-decoder ,Natural Language Processing * Playing Solitaire using CNN and Deep Reinforcement Learning | 4 |

Intro To Scikitlearn -

[http://amueller.github.io/sklearn\_tutorial/#/10](http://amueller.github.io/sklearn_tutorial/" \l "/10)

<http://machinelearningmastery.com/a-gentle-introduction-to-scikit-learn-a-python-machine-learning-library/>

<http://scikit-learn.org/stable/auto_examples/index.html>