S R M UNIVERSITY

Minor Project : Machine Learning

Abstract:

The objective of this briefing is to present an overview of the machine learning techniques currently in use or in consideration at statistical agencies worldwide .Our project involves presenting different model for performing various operation on dataset, building neural network by training different models and designing predictive models and different classifiers (Images , Datas) too .Machine learning is a method of data analysis that automates analytical model building. Using algorithms that iteratively learn from data, machine learning allows computers to find hidden insights without being explicitly programmed where to look.

Introduction:

Machine Learning is defined as an application of artificial intelligence where available information is used through algorithms to process or assist the processing of statistical data. While Machine Learning involves concepts of automation, it requires human guidance. Machine Learning involves a high level of generalization in order to get a system that performs well on yet unseen data instances. Machine learning is closely related to (and often overlaps with) computational statistics, which also focuses on prediction-making through the use of computers. It has strong ties to mathematical optimization, which delivers methods, theory and application domains to the field.

Tools Used:

1. Python 3.5
2. Python Libraries – Numpy, Matplot, Pandas, TextBlob, Tweepy, Scipy.
3. Scikit Learn
4. TensroFlow
5. Jupyter Notebook
6. VCS – Github (https://github.com/anand434/Minor-Project).

Adavantages:

- Adaptive websites (Optimized Result)
- Affective computing
- Bioinformatics (Medical Applications)
- Classifying DNA sequences (Finding flaws in DNA)
- Information retrieval
- Linguistics (Learning higher level Languages)
- Marketing Prediction
- Natural language processing
- Natural language understanding
- Recommender systems

Disadvantages:

1. Parameter Optimization
2. Works with continuous Loss Function
3. Limited Results
4. Large data requirements

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