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Technologies Used

For Machine Learning Algorithms Implementation

Desktop Software

- Click and Drag (Menu Driven)
  - KNIME
  - RapidMiner
  - SAS Enterprise Miner
  - IBM SPSS Modeller

Functional Programming Languages

- **R**
- **Python**
- Julia
- Scala

R

- An open source project
- Fast on desktop with small sized data
- Add-ins (packages) available for every statistical/ML algorithm in the world
- Has been used since last 2 decades for statistical computing by statistical professionals community
- There are good IDEs available like RStudio, RTVS, R Commander, Tinn-R, STATET(Eclipse plug-in) etc.
- Among IDEs R Studio is most known
- Provides a scope for implementing or own algorithms being an open source language

Python

- An open source project
- Fast on desktop with small sized data
- Add-ins (packages) available for every statistical/ML algorithm in the world
- The statistical aspects of Python have been developed recently
- There are good IDEs available like Spyder(Anaconda Installation), PyCharm etc.
- Provides a scope for implementing or own algorithms being an open source language

Cloud-Based Platform

- Amazon Web Services
- Microsoft Azure
- Google Cloud AI

Large Scale Data Processing Libraries

- Libraries are such kind of modules which are language independent.
- Using libraries, one can code in R / Python / Java
- Well known libraries for ML are
  - Apache Spark
  - h2o (by h2o.ai)
  - TensorFlow (by Google)
  - Theano (by University of Montreal)
  - CNTK (by Microsoft)
- All of the above provide support for GPU-based operations for algorithms in Deep Learning
- The superb feature which these libraries provide is the fast speed that too at low cost.

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Thank You