Machine Learning

Importance

- **Introduction**
    - a. **Steps in developing a ML application(MUST DO)**
    - b. **Types of learning(MUST DO)**
    - c. **Application and issues in ML**
    - d. **How to choose the right algorithm**
- **Regression**
    - a. **Linear regression (theory + sum)(MUST DO)**
    - b. **Logistic regression – Short notes**
- **Classification with trees**
    - a. **Decision tree (theory + sum)(MUST DO)**
- **Dimensionality Reduction(MUST DO)**
    - a. **PCA**
    - b. **ICA**
- **Support Vector machine**
    - a. **key terminologies(MUST DO)**
    - b. **maximum margin concept and how to compute margin(MUST DO)**
    - c. **kernel and types of kernel**
    - d. **soft SVM**
- **Classification(MUST DO & EASY)**
    - a. **Bayesion belief network**
    - b. **Hidden markov model (HMM)**
    - c. **Back propagation algorithm**
- **Clustering**
    - a. **K-mean clustering(MUST DO & EASY)**
    - b. **Hierarctical agglomerative clustering(MUST DO & EASY)**
    - c. **Radial basis function - Short notes**
- **Reinforcement Learning**
    - a. **Elements of reinforcement learning & partially observable states**
    - b. **Temporal difference learning**

Extra
- **• Model based and Q learning**

Do share with your friends and help them :)