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| **Session 1** |  |
| Introduction | Use Case Collection  Supervised vs Unsupervised Learning  Classification vs Numerical Prediction Problems  Different Steps of the Data Science Life Cycle |
| Decision Tree | Decision Tree Algorithm  Evaluation of Classification Models |
| **Session 2** |  |
| Regression Models & Ensemble Models | Linear Regression Algorithm  Evaluation of a Numerical Prediction Model  Regression Tree Algorithm  Ensemble Models: Bagging & Boosting |
| Logistic Regression | Logistic Regression Algorithm and Likelihood Function  Gradient Descent |
| **Session 3** |  |
| Neural Networks | Biological vs Artificial Neuron  Feedforward Network  Backpropagation  Introduction to RNNs and CNNs |
| Recommendation Engines | A-priori Algorithm  Collaborative Filtering |
| **Session 4** |  |
| Clustering | k-Means  Hierarchical Clustering  DB-SCAN |
| Data Preparation | Dimensionality Reduction  Outlier Detection  Missing Value Imputation  Feature Selection |
| **Session 5** |  |
| Wrap Up Session | Discussion of last Exercise and Q&A |
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[L4-ML] Introduction to Machine Learning Algorithms

Online