

# CETPA INFOTECH PVT. LTD.

## COURSE CONTENT OF MACHINE LEARNING

<ul style="list-style-type: none"> <li>• Revisiting Python</li> <li>• Python Libraries for ML</li> <li>• What is ML? Why ML?</li> <li>• Introduction to Supervised ML</li> <li>• Introduction to Unsupervised ML</li> <li>• Mathematical Background for ML- Matrix ops Probability Theory (Bayes' Theorem)</li> <li>• Statistical knowledge for ML- Mean, Median, Mode , Z-scores, bias -variance dichotomy</li> <li>• Tools required for development - Anaconda, Jupyter NB</li> <li>• ML libraries Explained: Scipy, Numpy, Matplotlib</li> <li>• ML Glossary- Variable types, k-fold CV, AUC ,</li> <li>• F1 score, Overfitting/Underfitting, Generalization,</li> <li>• Data split &amp; hyper parameter training</li> <li>• Data wrangling using Pandas</li> <li>• Preprocessing data and feature engineering</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Exploratory Data analysis using Visualisation</li> <li>• Scikit-learn Library for ML</li> <li>• Code Exercises</li> <li>• Supervised learning - Regression</li> <li>• Different types of Regression-Linear and Logistic</li> <li>• Decision tree Algorithms</li> <li>• Real-world code exercises</li> <li>• Supervised Learning- Classification</li> <li>• Naive- Bayes' Classification</li> <li>• KNN Classification</li> <li>• Real-world code exercises</li> <li>•</li> <li>• Clustering Introduction</li> <li>• k-means clustering</li> <li>• Code Exercises</li> <li>• Advanced topics-Curse of Dimensionality-PCA algo</li> <li>• SVM Classification Introduction</li> <li>• Real-time mini project</li> </ul>
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