Master in Machine Learning Course

About
DevOpsSchool

DevOpsSchool is a unit of "Cotocus PVT ltd" and a leading platform which helps IT organizations and professionals to learn all the emerging technologies and trend which helps them to learn and embrace all the skills, intelligence, innovation and transformation which requires to achieve the end result, quickly and efficiently. We provide over 40 specialized programs on DevOps, Cloud, Containers, Security, AI, ML and on Big data that are focused on industry requirement and each curriculum is developed and delivered by leading experts in each domain and aligned with the industry standards.

About Course

An exciting branch of Artificial Intelligence, this Machine Learning certification online course will provide the skills you need to become a Machine Learning Engineer and unlock the power of this emerging field. Our Machine Learning course will help you master the skills required to become an expert in this domain. Master skills such as Python, ML algorithms, statistics, supervised and unsupervised learning, etc. to become a successful professional in this popular technology. Our Machine Learning certification training comes with 24/7 support, multiple assignments, and project work to help you gain real-world exposure. If you are willing to become a master in ML then let's explore the concepts of Machine Learning and understand how it's transforming the digital world.

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Duration	48 Hours
Mode	Online (Instructor-led, live & Interactive)
Projects (Real time scenario based)	1

FEATURES	DEVOPSSCHOOL	OTHERS
Faculty Profile Check	✔	✖
Lifetime Technical Support	✔	✖
Lifetime LMS access	✔	✖
Top 25 Tools	✔	✖
Interviews Kit	✔	✖
Training Notes	✔	✖
Step by Step Web Based Tutorials	✔	✖
Training Slides	✔	✖
Training + Additional Videos	✔	✖

AGENDA OF THE MASTER IN MACHINE LEARNING COURSE

Introduction to Machine Learning (ML)

- Requirement of Machine Learning
- Well Introduction to Machine Learning
- Types of Machine Learning, such as supervised, unsupervised, and reinforcement learning,
- Machine Learning with Python, and the other applications of Machine Learning(ML)

Linear Regression & Supervised Learning

- Will be Introduced to supervised learning and the other types of supervised learning, like regression and classification
- Will be Introduced to regression
- Simple linear regression
- Multiple linear regression and assumptions in linear regression
- Math behind linear regression
- Hands-on Exercises:
- Implementation of linear regression from scratch in Python
- Using Python library Scikit-Learn to perform simple linear regression and multiple linear regression
- Implementation of train-test split and predicting the values on the test set

Logistic Regression & Classification

- Introduction to classification
- Linear regression vs logistic regression(Difference)
- Math behind logistic regression, detailed formulas, the logit function and odds, confusion matrix and accuracy, true positive rate, false positive rate, and threshold evaluation with ROCR
- Hands-on Exercise:
- Implementation of logistic regression from scratch with Python
- Using Python library Scikit-Learn to perform simple logistic regression and multiple logistic regression
- Building a confusion matrix to find out accuracy, true positive rate, and false positive rate.

Decision Tree and Random Forest

- Introduction to tree-based classification
- Understanding a decision tree, impurity function, entropy, and understanding the concept of information gain for the right split of node
- Understanding the concepts of information gain, impurity function, Gini index, overfitting, pruning, pre-pruning, post-pruning, and cost-complexity pruning
- Introduction to ensemble techniques, bagging, and random forests and finding out the right number of trees required in a random forest
- Hands-on Exercises:
- Implementing a decision tree from scratch in Python
- Using Python library Scikit-Learn to build a decision tree and a random forest
- Visualizing the tree and changing the hyper-parameters in the random forest

Support Vector Machine (self-paced) & Naïve Bayes

- Introduction to probabilistic classifiers
- Understanding Naïve Bayes and math behind the Bayes theorem
- Understanding a support vector machine (SVM)
- Kernel functions in SVM and math behind SVM
- Hands-on Exercise:
- Using Python library Scikit-Learn to build a Naïve Bayes classifier and a support vector classifier

Unsupervised Learning module

- Types of unsupervised learning, such as clustering and dimensionality reduction, and the types of clustering
- Introduction to k-means clustering
- Math behind k-means
- Dimensionality reduction with PCA
- Hands-on Exercise:
- Using Python library Scikit-Learn to implement k-means clustering
- Implementing PCA (principal component analysis) on top of a dataset

Text Mining (self-paced) & Natural Language Processing

- Introduction to Natural Language Processing (NLP)
- Introduction to text mining
- Importance and applications of text mining
- How NPL works with text mining
- Writing and reading to word files
- Language Toolkit (NLTK) environment
- Text mining: Its cleaning, pre-processing, and text classification
- Hands-on Exercise:
- Learning Natural Language Toolkit and NLTK Corpora
- Reading and writing .txt files from/to a local drive
- Reading and writing .docx files from/to a local drive

Deep Learning Introduction

- Introduction to Deep Learning with neural networks
- Biological neural networks vs artificial neural networks
- Understand the perception learning algorithm, introduction to Deep Learning frameworks, and TensorFlow constants, variables, and place-holders

Time Series Analysis (self-paced)

- What is a time series? Its techniques and applications
- Time series components
- Moving average, smoothing techniques, and exponential smoothing
- Univariate time series models
- Multivariate time series analysis
- ARIMA model and time series in Python
- Sentiment analysis in Python (Twitter sentiment analysis) and text analysis
- Hands-on Exercise:
- Analyzing time series data
- The sequence of measurements that follow a non-random order to recognize the nature of the phenomenon
- Forecasting the future values in the series

Thank you!

Connect with us for more info

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www.DevOpsSchool.com