



Machine Learning and Data Science Bootcamp

Description:

This is a data science detailed course where you will learn all the stack required to work in data science, data analytics and big data industry.

Start Date:

Doubt Clear Time:

Course Time:

Features:

- # Course material
- # Course resources
- # On demand recorded videos
- # Practical exercises
- # Quizzes
- # Assignments

Course completion certificate

What we learn:

Getting started with Machine Learning

Installation for Windows and MAC

Python Quick Refresher

Mastering NUMPY Library

Mastering PANDAS Library

Mastering MATPLOTLIB Library

Mastering SEABORN Library

Multi index Matrix

Portfolio Project - Classic 911 analysis

Data preprocessing for Machine Learning

Supervised, Unsupervised and Reinforcement Learning

Linear regression algorithm

Portfolio Project - Housing dataset analysis

Decision Tree Regression Algorithm

K-Nearest Neighbors Algorithm

Support Vector Machine Classifier

Naïve Bayes Algorithm

Neural Network and Deep Learning

Requirements:

System with Internet Connection

Interest to learn

Dedication

Instructor:

Name:

Hitesh Choudhary

Description:

I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

>Getting started with Machine

Learning:

>>Why Machine Learning and How it works

>>Where we are using Machine Learning

>>What is machine learning

>Installation for Windows and

MAC:

>>what you need - Windows

>>Installing python Anaconda and setup - Windows

>>Let 27s collect our tools first- MAC

>>Installing python and anaconda - MAC

>Python Quick Refresher:

>>Python datatypes

- >>Making decisions in python
- >>Loops in python
- >>Practice Python - 1 - Average list
- >>Practice Python - 2 - Palindrome
- >>Practice Python - 3 - Identity matrix
- >>Practice Python - 4 - Multiplication table
- >>Practice Python - 5 - Second largest
- >>Practice Python - 6 - merging lists

>Mastering NUMPY Library:

- >>Anaconda and python notebooks
- >>What is numpy
- >>Basics of numpy - generating matrix
- >>Numpy - matrix operations
- >>Numpy file paths and copy issues
- >>Numpy 2D selection
- >>Numpy conditional returns
- >>Numpy Mean Deviation 2C dot and cross products

>Mastering PANDAS Library:

- >>Introduction to PANDAS library
- >>Handle series with Pandas
- >>DataFrames in Pandas
- >>Subselection using pandas

>>Conditional selection in PANDAS

>>Multiple conditions in PANDAS

>>basics of datacleanup

>>Merging the data and operations

>>Reading and writing files

>Mastering MATPLOTLIB

Library:

>>Introduction to MATPLOTLIB

>>Our first linear graph using MATPLOTLIB

>>plotting histograms in matplotlib

>>plotting ads data with stackplot

>>Pie chart for ads

>Mastering SEABORN Library:

>>Introduction to SEABORN

>>Plotting graphs with SEABORN

>>Factor plot and Fat consumption data

>>Swarmplot with IRIS dataset

>Multi index Matrix:

>>Multilevel indexing

>Portfolio Project - Classic 911

analysis:

>>Setup of resource files and python notebook

>>Loading dataset and verifying it

>>Answering top 3 questions in dataset

>>Python knowledge with Pandas

>>working with data time of python

>>Group the data by Days and months

>Data preprocessing for Machine Learning:

>>Data preprocessing basics for Machine Learning

>>importing dataset and libraries

>>Separating dependent and independent matrixes

>>Imputation of missing values

>>Dummy matrix and one hot encoder

>>Preparing test and training dataset

>>Feature scaling - Might be needed

>Supervised, Unsupervised and Reinforcement Learning:

>>Supervised, Unsupervised and Reinforcement Learning

>Linear regression algorithm:

>>Linear Regression theory

- >>Importing libraries and dataset
- >>creating test and training data sets
- >>Training the machine for prediction
- >>plotting graphs on training and predictions

>Portfolio Project - Housing dataset analysis:

- >>Housing dataset analysis using Linear Regression

>Decision Tree Regression

Algorithm:

- >>How decision tree Algorithm works
- >>Loading our dataset for Decision tree
- >>Predicting values using Decision Tree algorithm

>K-Nearest Neighbors

Algorithm:

- >>K-Nearest Neighbors theory
- >>loading data and libraries
- >>splitting data into training and test sets
- >>Applying KNN confusion matrix and plotting

>Support Vector Machine

Classifier:

>>Theory of Support Vector Machine SVM

>>Loading libraries and dataset

>>Test and training data with feature scaling

>>Confusion matrix and stackoverflow debugging

>Naïve Bayes Algorithm:

>>What is Bayes theorem

>>Naive bayes and scikit docs for it

>>importing dataset for NB

>>data preprocessing for NB

>>prediction and confusion matrix for NB

>Neural Network and Deep Learning:

>>Neural Network and Deep learning

>>Installing tensorflow