

Python & Machine Learning Course

Chapter 1: Python basics

5hrs

1. Python Installation
2. Variables & Operators
3. Control Flow
4. Functions
5. Built-in data structures

Chapter 2: Intermediate Python

7hrs

1. Object Oriented Programming
2. Modules in Python
3. Error Handling
4. Iterators & Generators

Chapter 3: Numpy

2hrs

1. Intro to Numpy
2. Numpy arrays
3. Numpy operations

Chapter 4: Pandas

4hrs

1. Intro to Pandas
2. Intro to data frames
3. Missing Data
4. Grouping, Joining
5. Operations

Chapter 5: Matplotlib

4hrs

1. Intro to Matplotlib
2. Line plots
3. Scatter plots
4. Bar graphs
5. Histograms

Chapter 6: Intro to Machine Learning

2hrs

1. Supervised Learning
2. Unsupervised Learning
3. Scikit learn

Chapter 7: Maths for Machine Learning

3hrs

1. Linear Algebra basics
2. Probability & Statistics basics

Chapter 8: Linear Regression

3hrs

1. Linear Regression theory
2. Linear Regression implementation
3. Linear Regression implementation using Scikit learn

Chapter 9: Logistic Regression

4hrs

1. Logistic Regression theory
2. Logistic Regression implementation
3. Logistic Regression implementation using Scikit learn

Chapter 10: Clustering

5hrs

1. Clustering theory
2. K means clustering implementation
3. Logistic Regression implementation using Scikit learn

Chapter 11: Decision Trees & Random Forest

6hrs

1. Intro to Decision Trees
2. Entropy & information gain
3. Decision Trees using Sci-kit Learn
4. Random Forest & Ensembles
5. Random Forest using Sci-kit Learn

Chapter 12: Feature Selection

2hrs

6. Intro to Feature Selection
7. Types of feature selection

Chapter 13: HTML, CSS crash course

2hrs

1. Basics of HTML
2. Basics of CSS

Chapter 14: Bootstrap basics

2hrs

1. Why bootstrap?
2. Intro to Bootstrap
3. Bootstrap classes

Chapter 15: Git & GitHub

3hrs

1. What is a version control system?
2. Intro to git

3. Basic git commands
4. Creating a GitHub account & upload the project

Chapter 16: Flask Basics

2hrs

4. Intro to Flask
5. Basic Routing

Chapter 17: Flask Templates

2hrs

1. Template basics
2. Template variable, control flow

Chapter 18: Flask Deployment

2hrs

1. Deployment of flask app

Total Hours

60hrs