NetTech India

Get Certified

Certified Professional Diploma in

DATA SCIENCE

Address :- 203, Ratnamani Building, Dada Patil Wadi, Opp ICICI ATM, Near Platform No.1, **Thane West**, Maharashtra 400601

098708 03004 / 5 info@nettechindia.com

Address :- 187/A , 1St Floor, Sukhmani Building, S V Road, Opp Nadko Shopping Centre, Above Top 10 Mobile Shop, **Andheri West** - 400058

7304639164 / 5 info@nettechindia.com

CERTIFICATIONS OPTIONS AVAILABLE

JGI

JAINx THE LEARNING HUB

JAIN DEEMED-TO-BE UNIVERSITY

IBM

Microsoft

NTi Get Certified

NetTech India

ABOUT US

NetTech India Training Institute offers a high-quality learning experience in the field of IT training to train students on brand new technologies and train them to deliver the desired results with commercially relevant and re-organized technical skills.

The probability of achieving your dream job will keep on increasing day by day once you complete a course in **NetTech India**. We also focus on improving soft skills in terms of communication, leadership, teamwork, external appearance, and attitude which helps everyone to be professional in all the aspects of their career.

25%
Theory

75%
Practicals

ABOUT
DATA SCIENCE

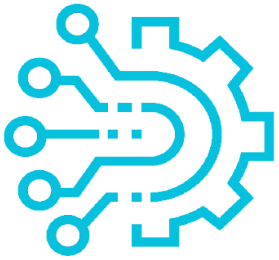
Being a Data Scientist is one of the hottest and trending career option of the decade. The demand for data scientists is huge, the number is said to be much higher than the available candidates. A Data scientist performs research and analyses data and help companies flourish by predicting growth, trends and business insights based on a large amount of data. Basically, data scientists are big data wranglers. They take this huge data and use their skills in mathematics, statistics and programming to clean and organise the data.

BENEFITS OF DATA SCIENCE

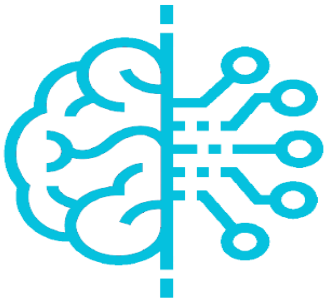
- Career Growth - Higher Pay & Position
- Encourages professional Development
- Enriches self-image and Reputation
- Enhances professional Credibility.
- Abundant Job Opportunities
- Used In Many Industries
- Global Recognition
- Secure and Flexible
- 50+ Case Studies
- 50+ Projects

TOPICS OF
Certified Professional Diploma in
DATA SCIENCE

PYTHON



MACHINE LEARNING



ARTIFICIAL INTELLIGENCE

SQL

DATA SECURITY

PYTHON CONTENT

1. Introduction to Python

- History of Python
- Why to learn python
- How is Python Different?
- Installing Python

2. Python Interpreter

- Using the interpreter
- Integrated Development Environments (IDE) How to run Python programs?

3. Basics of Python

- Variable
- Keywords
- Statements & Comments
- Indentation
- Data types

- Static Typing vs Dynamic Typing
- Input and output
- Operators Arithmetic operator Relational Operator Assignment Operator
- Logical operator Bitwise operator Membership Operator
- Identity Operator

4. Control Flow

- If statement
- If - else
- If – elif -else
- Nested if-else
- while loop
- for – in loop
- Nested for loop
- Nester while loop
- Loop with else
- Pass statement
- Break and continue

5. Functions

- Basics Defining function
- Function call Return statement
- Function with parameter and without parameter
- Function parameters Call by value or call by reference local and global variable
- Recursion, Anonymous (lambda) function
- User define functions
- Examples

6. Modules

- Defining module
- How to create a module
- Importing module
- Dir()
- Module search path
- Reloading a module
- Sys module
- Os module
- Namespace

7. Package

- Defining package
- How to create the package
- Importing package
- Installing third party packages

8. Numeric Types

- Numeric type basics
- Hexadecimal, Octal, and Binary Notation
- Complex Numbers
- Typecasting Numeric Functions
- Random number generation(Using Random Modules)

9. String

- Defining a string
- Different ways to create string Accessing elements of the string
- Escape sequence
- Raw string String methods
- String formatting Expressions

10. List

- Defining a list
- Creating list
- Accessing list elements of list
- Deleting list
- List methods
- Functions used with list
- List comprehension
- Implementation of stack and queue using list
- Use of Zip ()
- Matrix operations using list

11. Tuple

- Defining a tuple
- Creating a tuple
- Accessing elements of the tuple
- What is Immutability
- List vs tuples
- Tuple Methods Functions used with tuple
- Advantage of Tuple

12. Dictionary

- Defining a dictionary
- Creating a dictionary
- Accessing elements of the dictionary
- Deleting a dictionary
- Dictionary methods
- Dictionary Comprehension

13. Set

- Defining a set
- Creating set
- Set operations
- Set methods
- Set comprehension

14. Files

- Defining a file
- Types of file operations
- Opening a File
- Closing file
- File modes

- File attributes
- Writing to file
- Reading from file
- Appending to file
- File positions
- Binary file
- Pickle module

15. Exception Handling

- Defining an exception?
- Default exception handler
- Exception handling techniques

a. Detecting Exception (try)
b. Catching exceptions (catch)
c. Catching multiple exceptions
d. Raising exception (raise) Finally block

- User-defined exceptions

16. Object-Oriented Programming
OOPS concepts Defining

Class Creating object

- Method vs function Calling methods
- Instance attribute vs class attribute
- Instance method vs class method
- Private attribute and method Static Method
- Method Overloading Constructor
- Method Overriding Constructor
- List of objects Inheritance
- Examples

17. Multi-Threading

- Process-based multitasking
- Thread based multitasking
- Creating a Thread without using class
- Creating thread using class
- Sleep() method
- Join() method Getting and setting the name of the Thread Logging module
- Synchronization
- Lock concept
- Object-Oriented

- Inter thread communication
- Is_Alive() method
- Active_count() method
- Enumerate() method
- Current_thread() method
- Daemon Thread

18. GUI Programming with Tkinter

- Introduction to Tkinter
- Creating a window Tkinter widgets Label
- Button Entry Messagebox List
- Radio Button CheckButton Creating Frame
- Creating Menu Assignments on Tkinter
- Examples

19. Event Handling

- Defining an event
- Bind() method
- Mousse events
- Keyboard events
- Examples

20. Data Base Programming

- Introduction to MySQL.connector module, Connecting to the database by using MySQL, Creating a table by MySQL
- Performing SQL operations, Introduction to mysql, Installing mysql, Creating database using mysql
- Connecting MySQL database from python, Creating a table, Performing
- SQL operations
- Examples

21. Networking

- Introduction to Network programming, Ip address, Port NumberSocketmodule, Server socket, Client socket, Socket methods, TCP socket, UDP socket
- Create server-client examples

22. Conversion of Python script to executable file

- Defining an executable file , Deploying the application

23. LIVE PROJECTS

- Create GUI and store data in the Database. (5-day session) Create a server-client program. (using TCP)

And Many More...

MACHINE LEARNING

1. Introduction to Machine Learning

- Introduction to Machine Learning
- Types of Machine learning
- Data understanding: real-life example
- Application of Machine Learning
- Discussion on different packages used for ML
- Related concepts: Splitting the dataset into train set and test set
- Practical knowledge of the algorithm on Python

2. Introduction of Statistics

- Descriptive statistics: Measure of Central Tendency, Measure of Dispersion, Measure of Shape
- Probability and sampling: Conditional probability, Bayes theorem
- Probability Distribution
- Hypothesis Test

3. Packages of Machine Learning

- Numpy
- Pandas
- Matplotlib
- Seaborn

4. Exploratoy Data Analysis

- Introduction to Graphs
- Description about data
- Visualisation
- Data cleaning

5. Data prepressing

- Scaling
- Normaliztion
- Standardization

6. Regression Techniques

- Linear Regression Technique
- Dataset with problem description
- Non- Linear Regression Techniques
- Logistic Regression Technique

7. K-Nearest neighbours

- K-Nearest Neighbors
- Concept and theory
- Distance functions: Euclidean, Minkowski
- Why should we use KNN?
- Mathematical approach
- Dataset with problem description
- Practical application on Python

8. Support Vector Machine

- Support Vector machine
- Introduction to Support Vector Machine
- Mathematical Approach
- Theory on hyperplane
- Dataset with problem description
- Practical application on Python

9. Decision Tree

- Introduction to Decision Tree
- Significance of using Decision Tree
- Different kinds of Decision Tree
- Procedure and technique of Decision Tree
- Practical application of Decision Tree on Python

10. Random Forest

- Random Forest
- Theory and mathematical concepts
- Entropy and Decision Tree
- Dataset with problem description
- Classification using random forest on Python

11. Naive Bayes

- Introduction of Naïve Bayes
- Theory of classification
- Concept of probability: prior and posterior
- Bayes Theorem
- Mathematical concepts
- Limitation of Naïve Bayes
- Dataset with problem description
- Practical application on Python

12. Clustering

- Introduction of clustering
- K-mean clustering
- Hierarchical Clustering
- Dataset with problem description
- Practical application on Python

13. Gradient Descent

- Gradient descent
- Stochastic GradientDescent
- Gradient boosting
- Types of boosting
- Bootstrapping
- Practical application on Python

14. Dimensionality Reduction Techniques

- Linear Discriminant Analysis (LDA)
- Principal component Analysis (PCA)
- Business case study

15. Time Series Analysis

- Introduction to time series
- Components of Time Series: Trend, Seasonal, Cyclical
- Types of Forecasting methods: Autoregressive Model, Moving Average Model, Autoregressive Integrated Moving Average Model, Seasonal Autoregressive Integrated Moving Average Model
- Practical application on Python

ARTIFICIAL INTELLIGENCE

1. Introduction

- Introduction to Artificial Intelligence
- Applications of Artificial Intelligence
- Keras
- Tensorflow

2. Deep Learning

- Introduction to Deep Learning
- Application of Deep Learning
- Types of Deep Learning Algorithms: ANN, RNN,CNN

3. Artificial Neural Network

- Plan of attack
- Activation function
- Gradient descent
- Stochastic Gradient Descent

- Backpropagation
- Practical approach with python

4. Recurrent Neural Network

- Introduction of Recurrent Neural Network
- Application of RNN
- Simple RNN
- GRU
- LSTM
- Practical approach with python

5. Convolution Neural Network

- Introduction of Convolution Neural Network
- Plan of attack
- Convolution Operation
- ReLU layers
- Pooling
- Flattening
- Different layers
- Practical approach using python

6. Reinforcement Learning

- Agent environment problem
- Reinforcement process
- Q-learning
- Practical approach with python

7. Natural Language Processing

- Introduction of NLP
- NLTK
- Application of Natural Language Processing
- Regular expression
- Feature Extraction
- Text mining
- Phases of NLP
- NLTK: Tokenizer, CountVectorizer
- Sentiment Analysis
- Practical approach with python

8. Image Processing & Computer vision

- Introduction of computer vision
- Application of Computer Vision
- What is OpenCV
- Image Processing with OpenCV
- Image Detection with OpenCV
- Practical approach with python

SQL

Oracle SQL 12C :- Exam code: 1Z0-061

Introduction to Oracle Database

- List the features of Oracle Database 12c
- Discuss the basic design, theoretical, and physical aspects of a relational database
- Categorize the different types of SQL statements
- Describe the data set used by the course
- Log on to the database using SQL Developer environment
- Save queries to files and use script files in SQL Developer

Retrieve Data using the SQL SELECT Statement

- List the capabilities of SQL SELECT statements
- Generate a report of data from the output of a basic SELECT statement
- Select All Columns
- Select Specific Columns
- Use Column Heading Defaults
- Use Arithmetic Operators
- Learn the DESCRIBE command to display the table structure
- Understand Operator Precedence

Learn to Restrict and Sort Data

- Write queries that contain a WHERE clause to limit the output retrieved List
- the comparison operators and logical operators that are used in a WHERE clause
- Describe the rules of precedence for comparison and logical operators Use
- character string literals in the WHERE clause
- Write queries that contain an ORDER BY clause to sort the output of a SELECT statement
- Sort output in descending and ascending order

Usage of Single-Row Functions to Customize Output

- Describe the differences between single row and multiple row functions
- Manipulate strings with character function in the SELECT and WHERE clauses
- Manipulate numbers with the ROUND, TRUNC, and MOD functions
- Perform arithmetic with date data
- Manipulate dates with the DATE functions

Invoke Conversion Functions and Conditional Expressions

- Describe implicit and explicit data type conversion
- Use the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions
- Nest multiple functions
- Apply the NVL, NULLIF, and COALESCE functions to data
- Use conditional IF THEN ELSE logic in a SELECT statement

Aggregate Data Using the Group Functions

- Use the aggregation functions in SELECT statements to produce meaningful reports
- Divide the data into groups by using the GROUP BY clause
- Exclude groups of data by using the HAVING clause

Display Data From Multiple Tables Using Joins

- Create a simple and complex view
- Retrieve data from views
- Create, maintain, and use sequences
- Create and maintain indexes
- Create private and public synonyms

Use Subqueries to Solve Queries

- Describe the types of problem that sub-queries can solve
- Define sub-queries
- List the types of sub-queries
- Write single-row and multiple-row sub-queries

The SET Operators

- Describe the SET operators
- Use a SET operator to combine multiple queries into a single query
- Control the order of rows returned

Data Manipulation Statements

- Describe each DML statement
- Insert rows into a table
- Change rows in a table by the UPDATE statement
- Delete rows from a table with the DELETE statement
- Save and discard changes with the COMMIT and ROLLBACK statements
- Explain read consistency

Use of DDL Statements to Create and Manage Tables

- Categorize the main database objects
- Review the table structure
- List the data types available for columns
- Create a simple table
- Decipher how constraints can be created at table creation
- Describe how schema objects work

Other Schema Objects

- Create a simple and complex view
- Retrieve data from views
- Create, maintain, and use sequences
- Create and maintain indexes
- Create private and public synonyms

Control User Access

- Differentiate system privileges from object privileges
- Create Users
- Grant System Privileges
- Create and Grant Privileges to a Role
- Change Your Password
- Grant Object Privileges
- How to pass on privileges?
- Revoke Object Privileges

Management of Schema Object

- Add, Modify and Drop a Column
- Add, Drop and Defer a Constraint
- How to enable and disable a Constraint?
- Create and Remove Indexes
- Create a Function-Based Index
- Perform Flashback Operations
- Create an External Table by Using ORACLE_LOADER and by Using

ORACLE_DATAPUMP

- Query External Tables

Manage Objects with Data Dictionary Views

- Explain the data dictionary
- Use the Dictionary Views
- USER_OBJECTS and ALL_OBJECTS Views
- Table and Column Information
- Query the dictionary views for constraint information
- Query the dictionary views for view, sequence, index, and synonym information
- Add a comment to a table

Manipulate Large Data Sets

- Use Subqueries to Manipulate Data
- Retrieve Data Using a Subquery as Source
- Insert Using a Subquery as a Target
- Usage of the WITH CHECK OPTION Keyword on DML Statements
- List the types of Multi-table INSERT Statements
- Use Multi-table INSERT Statements
- Merge rows in a table
- Track Changes in Data over a period of time

Retrieve Data Using Sub-queries

- Multiple-Column Subqueries
- airwise and No pairwise Comparison
- Scalar Subquery Expressions
- Solve problems with Correlated Subqueries
- Update and Delete Rows Using Correlated Subqueries
- The EXISTS and NOT EXISTS operators
- Invoke the WITH clause
- The Recursive WITH clause

Regular Expression Support

- Use the Regular Expressions Functions and Conditions in SQL
- Use Meta Characters with Regular Expressions
- Perform a Basic Search using the REGEXP_LIKE function
- Find patterns using the REGEXP_INSTR function
- Extract Substrings using the REGEXP_SUBSTR function
- Replace Patterns Using the REGEXP_REPLACE function
- Usage of Sub-Expressions with Regular Expression Support
- Implement the REGEXP_COUNT function

And Many More...

DATA SECURITY

1. Introduction

- Cyber Threat
- Data Security
- Importance of Data Security
- CIA traid
- Information Security Policies

2. Data Privacy

- Meta Data
- Big Data
- Non Personal Data
- Data Protection
- Data Protection Principles
- Personal Data Protection and Compliances
- GDPR
- PIPEDA

3. Device Security Tools

- End Point Device
- Mobile Phone Security
- Password Policy
- Security Patch Management
- Data Backup
- Third-Party S/w Management
- Device Security Policy
- Wireless Data Security
- Best Practices

4. Cyber Crimes

- Data Diddling
- Logic Bomb
- Virus
- Trojan
- Ransom ware
- Breach
- Online Scams
- Malicious Insider

5. Common Attacks

- SQL injection
- JavaScript Injection
- OS Command Injection
- Reverse Shell
- Malicious File Upload
- Dos & DDos
- RATs

6. Mitigation

- Security Patch
- Hot Fix
- Lookout for 0 Day
- HoneyPot
- IDS
- IPS
- Input Sanitation
- Whitelisting
- Blacklisting
- Mac Binding

7. Social Engg Threats

- Phishing
- Vishing
- Sniffing
- Spoofing
- WaterHoling
- Shoulder Surfing
- Evas Dropping

8. Cyber Law

- Legal Landscape
- IT Act 2000
- IT Act Amendment 2008
- Sec 65 & 66
- International Cyber Law
- Patent
- Copyright Infringment

SKILLS DEVELOPED BY DATA SCIENTIST

- Critical Thinking
- Coding
- Mathematics
- Communication
- Problem Solving
- Risk Analysis

And Many More...

WHO CAN LEARN ?

- Anyone who wants to build a career in Data Science
- Anyone who wish to gain knowledge about Programming Students
- who are currently in college or university

CAREER OPPORTUNITIES

- Data Scientist
- Machine Learning Engineer
- Machine Learning Scientist
- Application Architect
- Enterprise Architect
- Data Architect
- Business Intelligence Developer

And Many More...

OUR RECRUITERS

and Many More….

PROCESS FOR SUCCESS

GET PLACED

GET TRAINED

ENROLL

FACILITIES OFFERED

- Practical Training on Live Projects
- 100% Placement Guarantee
- Interview Preparation
- Global Certification
- Fully functional labs
- Online / Offline Training
- Study Materials
- Expert level industry recognized training

NetTech India

Get Certified

THANE

203, Ratnamani Building, Dada Patil Wadi, Opp ICICI ATM, Near Platform No.1, Thane, Maharashtra 400601

098708 03004 / 5

info@nettechindia.com

ANDHERI

187/A , 1St Floor, Sukhmani Building, S V Road, Opp Nadko Shopping Centre, Above Top 10 Mobile Shop, Andheri West - 400058

7304639164 / 5

info@nettechindia.com