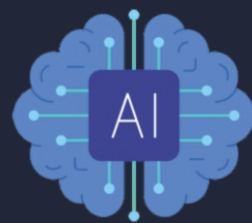
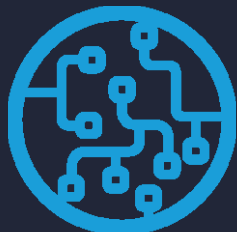




DATA SCIENCE



About Us

Mastercode infotech is operational in the city of Pune aka 'Oxford of the East'. We are an IT training service provider, offering certificate courses in software and several programming languages.

Our highly trained and experienced team is committed to ensure that our pupils acquire the skills which are most sought after and, are monetarily rewarding in the long run in the job market. Our objective is crystal clear i.e to help our candidates ace in the skills most desired in the tech industry and thus, increasing their suitability for various job roles.

Overview

Data Science stands at the forefront of a data-driven era, offering a gateway to unlock invaluable insights from vast information streams. Learning Data Science in today's landscape is pivotal for several reasons. Firstly, it equips individuals with the ability to decipher complex datasets, enabling informed decision-making crucial across industries.

Ultimately, learning Data Science isn't merely about mastering tools and algorithms; it's about shaping a future where data becomes a catalyst for positive change, innovation, and progress.

High Demand : Essential in industries leveraging data-driven strategies.

Wide Career Scope: Opportunities as data scientists, ML engineers, and AI specialists.

Insightful Decision-Making: Enables predictive analytics and strategic insights.

Lucrative Salaries: High-paying roles with growth potential.

Innovation Catalyst: Drives advancements in AI, automation, and big data.

Global Applicability: Skills valuable in any industry worldwide.

Personal Development: Enhances analytical, programming, and problem-solving skills.

Future-Proof Skills: Prepares for advanced technologies and research fields.

MODULE : 1**INTRODUCTION TO DATA SCIENCE**

- ~ Defining Data
- ~ Data Lifecycle
- ~ What is Data Science
- ~ DS vs ML vs DL vs AI
- ~ Data Science life Cycle
- ~ Data Science process
- ~ Data Science and its role in decision making and problem solving
- ~ Real world Applications of Data Science
- ~ Branches of Data Science
- ~ Job profiles in Data Science
- ~ Tools for Data Science
- ~ Skills for Data Science

MODULE : 2**FOUNDATIONS OF MATHEMATICS AND STATISTICS**

- ~ Fundamentals of Mathematics
- ~ Arithmetic and Algebra
- ~ Sets and Functions
- ~ Fundamentals of Probability
- ~ Descriptive Statistics

MODULE : 3**FOUNDATION OF PYTHON**

- ~ Introduction to Jupyter Notebook , and other IDEs
- ~ Writing and running your first Python program.
- ~ Keywords and Identifiers in python
- ~ Comments and Statements in Python

- ~ Pandas
- ~ Numpy
- ~ Sci-Kit Learn
- ~ Mat-Plot Library
- ~ Variables in Python
- ~ Data Types & Type Conversion
- ~ Operators in Python
- ~ String Operations
- ~ Python Data Structures
- ~ Python Flow Control & Loops
- ~ Packages and Functions in Python
- ~ OOPs in Python
- ~ Time complexity in Python
- ~ **Advanced Python** -
 - 1) File Operation and Directory
 - 2) Exception & Exception Handling
 - 3) Decorators and Namespaces
 - 4) Context Managers & Iterator
 - 5) Generators in Python

MODULE : 4

BASICS OF SQL

- ~ Introduction to SQL and Relational Databases
- ~ Retrieving Data with SELECT
- ~ Filtering Data with WHERE
- ~ Sorting, Limiting, and Paging Data
- ~ Aggregating Data with GROUP BY and Aggregate Functions
- ~ Modifying Data: INSERT, UPDATE, DELETE

MODULE : 5

MS EXCEL FOR DATA SCIENCE

- ~ Introduction to Excel for Data Analysis
- ~ Data Entry, Cleaning, and Formatting

- ~ Basic Formulas and Functions for Data Analysis
- ~ Advanced Formulas and Functions
- ~ Data Analysis Tools and Techniques ,PivotTables and PivotCharts
- ~ Power Query and Data Transformation
- ~ Statistical Analysis and Forecasting
- ~ Macros, Automation, and Custom Functions

SEMESTER - 2

MODULE : 1

MATHEMATICS AND STATISTICS INTERMEDIATE

- ~ Linear Algebra
- ~ Calculus
- ~ Inferential Statistics
- ~ Regression Analysis

MODULE : 2

DATA VISUALIZATION AND EDA IN PYTHON

- ~ Fundamentals of Python for Data Analysis ,Data Manipulation with Pandas
- ~ EDA Fundamentals,Univariate and Bivariate Analysis
- ~ Handling Missing Values and Outliers
- ~ Introduction to Matplotlib and Seaborn
- ~ Interactive Visualizations with Plotly and Bokeh

MODULE : 3

MACHINE LEARNING - I

- ~ Introduction to Machine Learning
- ~ Python and Libraries for ML
- ~ Data Preprocessing and Feature Engineering
- ~ Supervised Learning Algorithms ,Linear regression, polynomial regression

- ~ Model Evaluation and Validation
- ~ Unsupervised Learning Algorithms, K-means, hierarchical clustering
- ~ Dimensionality reduction: PCA, t-SNE
- ~ Ensemble Methods and Model Selection, Bagging and boosting technique

MODULE : 4

ADVANCED SQL

- ~ Joins and Combining Data from Multiple Tables
- ~ Subqueries and Nested Queries
- ~ Common Table Expressions (CTEs) and Window Functions
- ~ Data Integrity and Constraints
- ~ Views, Indexes, and Optimization, Stored Procedures, Functions, and Triggers

SEMESTER - 3

MODULE : 1

ADVANCED MATHEMATICS AND STATISTICS

- ~ Multivariate Calculus
- ~ Discrete Mathematics
- ~ Multivariate Analysis
- ~ Time Series Analysis
- ~ Bayesian Statistics

MODULE : 2

ADVANCED MACHINE LEARNING

- ~ Polynomial regression, regularization (Lasso, Ridge, Elastic Net)
- ~ Support Vector Machines (SVM) with various kernels
- ~ Ensemble methods
- ~ Time Series Forecasting
- ~ Dimensionality Reduction

- ~ **Neural Network Architectures: CNNs for image data, RNNs for sequential data**
- ~ **Advanced Deep Learning: Transfer learning using pre-trained models (VGG, ResNet)**
- ~ **Generative Adversarial Networks (GANs), Variational Autoencoders (VAEs)**
- ~ **Fundamentals of Reinforcement Learning**

MODULE : 3

ELECTIVE I - CHATGPT FOR DATA SCIENCE

- ~ **Introduction ChatGPT**
- ~ **Effective Prompt Engineering In ChatGPT**
- ~ **Traditional data science methods and the role of ChatGPT**
- ~ **Code Generation, Debugging and Code Optimization Using ChatGPT in python**
- ~ **Analyzing a client database with ChatGPT in python**
- ~ **Preprocess Data With ChatGPT**
- ~ **Exploratory data analysis (EDA) with ChatGPT**
- ~ **Build Machine Learning Models Using ChatGPT**
- ~ **Hypothesis testing with ChatGPT**
- ~ **Data Analysis in Power BI with ChatGPT**

MODULE : 4

ELECTIVE II - DATA/BUSINESS ANALYTICS WITH EXCEL

- ~ **Introduction to Business Analytics**
- ~ **Excel Basics for Business Analytics**
- ~ **Data Import and Cleaning in Excel**
- ~ **Exploratory Data Analysis (EDA) in Excel**
- ~ **Advanced Excel Functions for Business Analytics**
- ~ **Forecasting and Predictive Analysis in Excel**
- ~ **Dashboard Creation and Visualization in Excel**

- ~ Power Query and Power Pivot for Data Analysis
- ~ Business Strategy and Decision-Making with Analytics

SEMESTER - 4

MODULE : 1

SPECIALISATION I -BUSINESS INTELLIGENCE

- ~ Introduction to Business Intelligence
- ~ Analytics Tools and Techniques
- ~ Introduction To Big Data And Cloud
- ~ Analytics Using Spark
- ~ Power BI Overview and Installation
- ~ Data Visualization And Storytelling in Power BI
- ~ Advanced Data Visualization Techniques
- ~ Data Modeling in Power BI
- ~ Advanced Analytics with DAX
- ~ Collaboration and Sharing in Power BI

MODULE : 2

SPECIALISATION II -BUSINESS ANALYTICS

- ~ Introduction to Business Analytics
- ~ Business Intelligence (BI) Fundamentals
- ~ Data Visualization And Storytelling in Power BI
- ~ Statistical Analysis for Business Analytics
- ~ Predictive Analytics Techniques
- ~ Machine Learning Applications in Business Analytics
- ~ Time Series Forecasting
- ~ Structured Problem Solving

MODULE : 3**SPECIALISATION III -DEEP LEARNING**

- ~ Fundamentals of Deep Learning
- ~ Introduction To Neural Networks And ANN
- ~ Convolutional Neural Networks (CNNs)
- ~ Recurrent Neural Networks (RNNs) and Sequence Models
- ~ Object Detection & Image Segmentation
- ~ Gesture Recognition
- ~ Generative Adversarial Networks (GANs)
- ~ Reinforcement Learning in Deep Learning

MODULE : 4**SPECIALISATION IV -NATURAL LANGUAGE PROCESSING**

- ~ Introduction to Natural Language Processing
- ~ Neural Nets For NLP
- ~ Syntactic Processing
- ~ Syntactic Processing
- ~ Semantic Processing
- ~ Deep Learning for NLP

Your Journey Starts Here

Demo Session

Enroll

Study Material and Syllabus

Classroom / Online Training

Live Project Work

Mock Interview

Soft Skill Session

Course Certificate

Assured Placement

Live Project Work

Soft Skill Training


 **English Communication**

 **Mock Interview**

 **HR Interview Sessions**

Interview Preparation 

Resume Writing 

Interview Facing Tips, etc. 

You can look forward to work in the following job profiles upon the completion of the Data Science training in Pune :



**MASTERCODE
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GET IN TOUCH



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