Upflairs
... beacuse winning takes it all

DATA SCIENCE WITH MACHINE LEARNING & ARTIFICIAL INTELLIGENCE

Become Proficient in Python, Numpy, Pandas, Matplotlib, Seaborn, Sklearn, Machine Learning, Deep Learning, Computer Vision, NLP

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Career Opportunities In
DATA SCIENCE with Machine Learning & AI

Data Scientist
Analyzes data to extract insights and build predictive models for informed decision-making.

Machine Learning Engineer
Develops and deploys machine learning models for real-world applications.

Data Analyst
Gathers, cleans, and visualizes data to provide actionable insights for businesses.

Business Intelligence Analyst
Creates data reports and visualizations to monitor and inform business performance.

Data Engineer
Manages data collection, cleaning, and transformation for analysis.

AI Researcher
Advances artificial intelligence by developing new algorithms and models.

NLP Engineer
Develops language algorithms for chatbots, sentiment analysis, and translation.

Python Developer
Codes, tests, and maintains software, specializing in web development, data analysis, or automation.

A Brief About UPFLAIRS

UpFlairs is an innovative **educational technology** company with a clear mission to elevate the skills and employability of students throughout India.

Our dedicated team is committed to fostering the next generation of tech talent, equipping them with cutting-edge skills in emerging technologies and has educated more than 47K students all over the globe including IITs, NITs, Deemed Universities and other colleges.

We offer the courses that are most trending technologies of the recent era in the fields like **AI/ML, Data Science, Cloud Computing, DevOps, Full Stack Web Development, Embedded Systems, IoT, and Robotics.** These courses are meticulously designed to provide students with the practical skills and knowledge required to excel in tech-driven careers, making them not just job-ready but industry leaders of tomorrow.

We are not only limited to training the youth of the country but also provide Lab setups to various Colleges and Universities and Project solutions to other companies for the domains like **AI-ML, IOT , ROBOTICS AND CLOUD.**

Education

Project Solution

Lab Setup

Who Should Go for This **DATA SCIENCE WITH MACHINE LEARNING & AI?**

College Student

Start shaping your career right from college time by learning in-demand skills like Data Science with Machine Learning & AI.

Graduate

Time for you to upskill, prepare yourself for a bright future, and kickstart a career in Data Science with Machine Learning & AI.

College Dropout/Job Seeker

Not sure which career is right for you? Not finding any jobs? Learn Data Science with Machine Learning & AI with us to land your first job.

Freelancer

Whether you're already a freelance Data Scientist or looking to launch your career in freelancing, expertise in Machine Learning & AI is the most lucrative skill set for freelancers in the data science domain.

Looking to Switch Career

Not satisfied with your current job profile? Switch to Machine Learning & AI, an easy-to-learn, most impressive, and highly-paid skill.

Why Learn DATA SCIENCE WITH MACHINE LEARNING & AI With Upflairs Only?

Trusted by Learners

Our training and support system intrigue learners.

Expert Trainers

Professional Trainers having experience of delivering more than 30k students. We ensure the high quality training always aimed at career building.

Completely Practical-Oriented

We offer 100% practical training with regular assessment, assignment and projects.

Industry-Recognized Certification

The certificate received by the learners on course completion is valid nationally and internationally. You can easily share , add it to your resume and explore great opportunities.

Online & Offline Batches

You can upskill yourself from anywhere by joining our live training batches Also we provide classroom training in Jaipur.

Career Assistance

We help you build a great career as a developer. Our team offers you career guidance, pepares you for interview, and assists you in finding job.

Hands-On Projects

You will get to work on multiple projects during the training so that you can gain some experience.

Comprehensive Curriculum

The course includes most comprehensive Curriculum, covering all breadths and depths in detail.

DATA SCIENCE WITH MACHINE LEARNING		
Duration – 45 Days/6 Weeks (90 Hours)		
1	**Introduction (2.5 Hours)**	• Introduction with **AI & Machine Learning** • Data Science vs Data Engineering vs Data Analysis vs AI • Use of Data in the world of AI • Connecting with Upflairs Community • Basic Linux/Windows Commands • Setting Up GITHUB & Google Colab/Kaggle
2	**Python Overview (5+2.5 Hours)**	• Command line & Script based Python Programming • Python Quicker:Keywords, Data Types, Operators • Conditional/Looping/Error Handling in Python • Comprehensions • Python User Defined Functions • Python Generators • Lambda Expressions • Python Modules: Usage and Installation • Understanding the OOP of Python • GUI Development with Python
3	**Data in Python (1 Hour)**	• Types of DATA? • Numpy Arrays: Creating, Accessing, Manipulating • Array Attributes; Data Operations • The file handling in python • Dealing with Excel/Json/CSV/txt files
4	**Image Processing (4 Hours)**	• About Digital Images & Processing • Concept of Computer Vision in AI • Working on Digital Images (skimage, opencv, pillow, imutils) • Use of Matplotlib library for Images & Graphs • Changing Color-spaces, Geometric Transformations • Image Thresholding, Filtering, Morphology
	Computer Vision & Image Processing (2.5 Hours)	• Color Feature Detection in Images • Image Feature Detection, Extraction and Matching • Live Image Capturing
	Mini Project	*Project 1 :* • *"Moving Object Detector"* • *"My Selfie Machine"* • *"Detecting People and Vehicle Violating Covid Protocol"*
6	**Capstone Project**	*Capstone Project 1 : "Real Time Face Recognition based Music Player"*

	Natural Language Processing **(2.5 Hours)**	• What is NLP? Linguistic to Natural Language! • NLTK in Python for Text Processing • Text to Speech and Speech to Text Modules in Python • Morphological Analysis; Syntactic Analysis • Generating Word Clouds • SMTP with Python; Reading and Sending Mail from Python
7	**Chat bot** **Capstone** **(2.5 Hours)**	• What is Chat bot • How to create query-response pairs • Use of Regular Expressions • Interacting with Web-based Services • API Integration • Introduction with Flask • Deploying AI Applications over Web/Cloud
	Capstone Project	*Capstone 2 :* **"A Web-chatbot application"**
8	**Pandas** **(5 Hours)**	• Pandas: The Series and DataFrame • Creating, Accessing, Manipulating Pandas Data • Series and DataFrame Attributes & Basic Functions · Arithmetic and Statistical • Methods; Sort, Search, Count · Data Grouping, Missing Data Handling • Merging & Joining of Data • File Handling with Pandas
9	**Mini Project**	*Project 2 : "Movie Recommendation System"*
10	**Data Visualization** **(2.5 Hours)**	• Data is Beautiful…!!! • Visualization Libraries in Python • MATPLOTLIB PYPLOT: line, scatter, pie, box, area etc • Decorating the plots using Matplotlib (labels, colors, markers, legend, grids, figure sizes etc) • The Subplots and axes in matplotlib; Showing Images • Pandas Visualization: Basic Plots • bar, barh, hist, box, kde, density, area, scatter, hexbin, pie plots • Plotting with Missing Data • Easy and advanced Data Visualization from Seaborn • Categorical, Distributive, Regression, Matrix, Grid Plots • *Exercise*
	Mini Project	*Project 3 : "Descriptive Analytic Model of treadmill Users"*

11	**Introduction with Machine Learning** **(2.5 Hours)**	• What are chatbots • Understanding Regular Expressions • Creating Query & Response Pairs • Introduction with Flask & Server • Deploying Machine Learning Models over Web/Cloud Servers
	Mini Project	*Project 4 : "Real-estate Price Predictor Model"*
12	**Machine Learning** **– Regression** **(1 Hour)**	• Polynomial Regression: The Non-linearity in Data • Performance Evaluation of Regression Mode
13	**ML – Naïve Bayes** **(0.5 Hours)**	• The Bayes Theorem • Naïve Bayes Algorithm for Machine Learning
	Mini Project	*Project 5 : "Email SPAM Detection Application"*
14	**Web Scrapping** **(2.5 Hours)**	• What are web servers and how HTML look-like? • Scrapping the Live Data • *Exercise*
	Capstone Project	*Capstone 3 :* **"Customer Review Segmentation on Flipkart/Amazon"**
15	**Supervised ML – Classification (5 Hours)**	• Logistic Regression: Concept & Need • Performance Evaluation of Classifications Models • Support Vector Machines (SVM) • Kernel Nearest Neighbors (KNN) • The Information Theory • Decision Trees Classifier • Random Forest Classifier • Biases versus variances • Data Overfitting & Underfitting • The Concept of Cross-validation

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	Capstone Project	*Capstone 4 :* **"Customer Review Segmentation on Flipkart/Amazon"**
16	**Data Visualization** **Plotly (2.5 Hours)**	• The Real-time challenges of Data Visualization • The Front End of ML - PLOTLY • Plotly Express for Quick and Fiery Interactive Graphs · Scatter, Pie, Line, Bubble, Bar, Error, Box, Histograms • Heatmaps, Distribution Plots, Maps • User Instructiveness with User Controller • *Exercise*
	Unsupervised Machine Learning (2.5 Hours)	• K-Means Clustering • *Exercise*
18	**Artificial Neural Network (2.5 Hour)**	• Concept of Deep Learning & Neural Network • What is ANN? • The basic terminology – Layers, weights, biases, activation functions, losses, optimizers, learning rate • The Concept of Forward & Backward Propagation • Using Keras Library for ANN • Building and Compiling Sequential Neural Network Mode • *Exercise*
	Mini Project (3.5 Hours)	*Project 6 :* • *"Building Churn Prediction System for stomers"* · • *"Handwritten Digits Classification"*
19	**Recurrent Neural Network (0.5 Hour)**	• What is RNN • How RNN is different from ANN • The Concept of Long-Short-Term Memory (LSTM) • LSTM based Neural Networks for Future Prediction!!
	Mini Project	*Project 7 : "Stock Market Price Prediction"*
20	**Convolutional Neural Network – Keras (1.5 Hour)**	• The Convolution Theory – Filters, Pools, Averaging etc. • Generating Convolution Neural Network Models • Image Augmentation
	Mini Project (1 Hour)	*Project 8 :"Cat/Dog Classifier"*

21	**Transfer Learning** **(2.5 Hours)**	• About the Architectures: AlexNet, VGGNet, ResNet, UNet, EfficientNet • Yolo Mode • Building and Compiling Sequential Neural Network Mode.
	Capstone Project **(2.5 Hours)**	*Capstone 5 :* *"Object Recognition System"* *"Hand Gesture Recognition System"*
22	**AutoML & PyTorch** **(2.5 Hours)**	• Introduction with PyTorch • Implementation of AutoML • The Cloud AI Platforms
	Capstone Project	*Capstone 6 : "Human Recognition and Analysis Model"*

Banasthali Vidyapeeth

INDUSTRY 4.0
The Cloud Revolution
At : SKIT, Jaipur

Glimpse of Events
Upflairs

NIT, Jalandhar

JECRC, Jaipur

Banasthali Vidyapeeth

Upflairs

... beacuse winning takes it all

From Startups & SMBs to Brands & MNCs,
companies are actively looking for skilled
**Data Science with Machine Learning &
AI Engineer** at lucrative packages.

Grab these opportunities by holding mastery of
Data Science with Machine Learning & AI!

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