


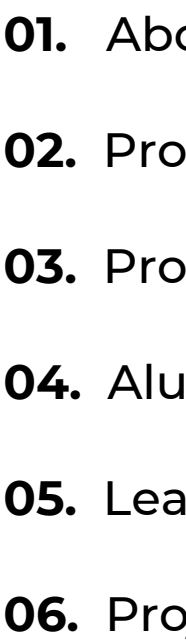
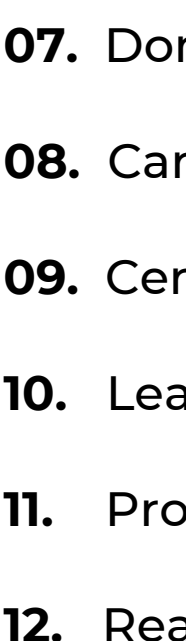
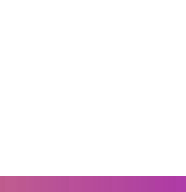
Data Science & AI Master Certification Program

In Collaboration with

IBM &  **Microsoft**

- ✓ **Domain Electives**
- ✓ **175% Average Salary Hike**
- ✓ **Hybrid Model for Project Sessions**



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2cr
worth
scholarships
awarded



600+
professional
s secured
jobs after a
career break



30k+
Trusted
Learners

About The Program

Our data science and AI master certification program is designed for working professionals seeking career growth in this dynamic field. We prioritise practical learning, industry insights, and real-world case studies, covering topics like statistics, data mining, and programming languages. Ethical considerations are integrated, giving professionals a competitive edge in the job market. Our goal is to offer affordable, industry-relevant education, empowering India's workforce to succeed.

“

We exist to provide accessible, reasonable, and industry-relevant education that empowers India's workforce to grow and develop.



4.79/5



4.66/5



4.8/5



Program Highlights



Industry-Relevant & Updated Syllabus

Learn the industry's latest tools, techniques & trends. Gain hands-on experience developing various apps.



360 Degree Knowledge Building

Develop practical skills through real-world projects and assignments.



1:1 Dedicated Mentorship

Personalized learning experience from experienced industry professionals.



Multiple Career Opportunities

Grow your career in data science and AI by targeting roles like data scientist, machine learning engineer, data architect, etc.

Program Details

COURSE PREREQUISITE

Prior knowledge of **programming/coding** is not mandatory. Just the urge to learn programming and basic ideas about advanced math is enough.

PROGRAM ELIGIBILITY

- ✔ **Working professionals** having more than 6 months of experience in any domain (Technical/Non-Technical)
-

KEY FEATURES

- ✔ Domain Electives (**BFSI, Retail, Supplychain, Marketing, Healthcare & more**)
 - ✔ Dedicated Placement Cell | 100% Guaranteed Interview calls
 - ✔ Globally Recognised **Certification from IBM & Microsoft**
-

JOB ROLES TO TARGET

Get equipped with the industry relevant skills and aim for job roles like Sr. Data Scientist, Machine Learning Engineer, AI Engineer, BI Developer, Big Data Architect, Sr. Data Analyst etc.

Click below

[Check Eligibility](#)

Alumni Spotlight



Shravanthi A
Data Scientist

Learnbay has helped me a lot to learn data science applications in the e-commerce industry. The live class concept was really helpful in receiving proper DS training. Thanks to all my mentors and the placement team.

**Mechanical
Domain**



Data Scientist @



230%
Salary Hike



Preksha Mishra
Lead Data Scientist

The course structure is excellent with emphasis on concept building and tools & software at the same time. The support team is excellent and supportive and quite agile to respond to doubts.

**Telecom
Domain**



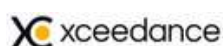
Data Scientist @



140%
Salary Hike



Karan Chawala



EXL

Data Scientist



Jaya Sinha



Infosys

Senior Analyst



Shubham Dev

publicis
sapient



brillio

Lead Data Analyst

Alumni Spotlight



Mohd. Israr
Data Scientist

Thanks to the Learnbay data science course & excellent guidance, I was able to ace the TCS interview and secure a job with a 210% pay raise. The real-world time projects helped me develop my concepts as a data scientist.

Mechanical
Domain



Data Scientist @



 **210%**
Salary Hike



Saurabh Kumar
Data Scientist

When I joined Learnbay I did not have any knowledge apart from the very basics. I gradually build my concept via various trainers and get trained in data science with strong knowledge/concepts.

Mathematics
Professor



Data Scientist @  Teleperformance

 **135%**
Salary Hike



Aravind

 TheMathCompany



CATERPILLAR®

Senior Data Scientist



Ritesh Kumar

 unacademy



Capgemini 

Data Scientist



Ramki

 cognizant



 **ANBSYSTEMS**
energizing solutions

Data Analyst

Learnbay's ProjectLab

Choose Learnbay for your career journey because we're more than just a training provider. Our Project Innovation Lab lets you apply your skills in real-world scenarios. Get [dual certifications](#) for a competitive edge. Specialize in your desired domain. Discover how Learnbay can boost your career growth. Don't settle for less – choose Learnbay, your path to success!

1 Project Innovation Lab



Work in an industry like environment and gain practical hands-on experience of data scientist with dedicated mentors from industry.

2 Domain Electives



Enhance career prospects and excellence in your chosen field with our domain electives.

3 Dedicated Placement Cell



Experience 100% job assistance with guaranteed interview call from leading MNCs and startups globally.

4 Degree & Certification



Gain top-notch skills for a successful career through our degree and certification program

1 Project Innovation Lab

Learnbay's Project Innovation Lab replicates industry like environment for real time projects. With our **ProjectLab**, you gain real proof of hands-on experience by having your project certified by the industry.

In our ProjectLab, you work like a data scientist with dedicated project mentors from industry and get certified on capstone project.

450+ Hiring Partners  PUNE 		 1-1 Doubt Session  HYDERABAD
 35k Trusted Learners		 Capstone Project Certificate from IBM
		  DELHI
	  BENGALURU	Project Innovation Labs Across India

2 Domain Electives

We offer Domain Electives for various industries including BFSI, Retail, Healthcare, Manufacturing, and Supply Chain. This ensures that you gain expertise directly relevant to your current domain.

With our program, you can make your past domain experience relevant and position yourself for a significant salary hike.



BFSI

Advanced analytics for risk assessment and fraud detection in finance.

Brochure 



Healthcare

Data-driven insights for improved patient care and medical research.

Brochure 



Manufacturing

Optimising operations with data analytics and predictive maintenance solutions.

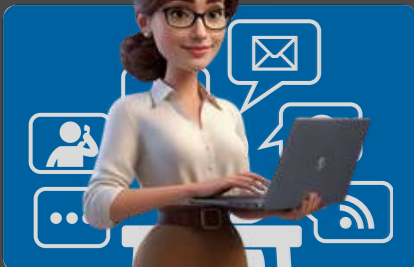
Brochure 



Supplychain, E-com & Retail

Enhancing supply chain visibility and customer experience with data.

Brochure 



Sales, Marketing and HR Domain

Data science can help marketers tailor their efforts to suit individual needs and preferences.

Brochure 



Energy Oil and Gas

Data science can help the energy and utilities industry optimize the performance of critical assets.

Brochure 



Media, Hospitality & Transportation

help businesses improve personalization, implement dynamic pricing, and perform predictive maintenance

Brochure 



3 Career Service PRO



Get 3 years of Job and Placement support

Unleash your career potential with unlimited job access, interview support, and profile review.

Unlimited Mock Interviews with Industry Experts

Master the art of data science & AI and stay ahead of the curve with mockups and industry insights



Resume Building Session

Craft a powerful resume showcasing your expertise in software development to stand out from the competition

1:1 LinkedIn Review Session

Get 1-on-1 sessions with experts for a better understanding of LinkedIn profile reviews and cover letter.



Dedicated Placement Cell

Receive unlimited interview calls from a diverse pool of interested employers/recruiters until you successfully secure a job

4

Certificates



World's leading certifications



IBM Course Certificate

Complete your training with the globally recognized certificate.



Microsoft Course Certificate







Achieve professional growth & increase earning potential with Microsoft certification.



IBM Capstone Project Certificate

Highlight your skills & boost your project portfolio with capstone project certificate.

Others Vs Learnbay

Benefits		Learnbay	Others
	Guaranteed Interview Calls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Industry capstone project certificate from IBM	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Domain specialized programs for professionals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	100% live interactive sessions with industry experts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	On-demand video call with industry experts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Personalised Resume Review Session	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Program Fee & Financing



Scholarship



Scholarships are awarded based on profile review. Eligible candidates can avail upto 25% scholarship on desired courses. Click the button below to apply.

Click below

[Check Scholarship Eligibility](#)

**Financing as low as
Rs. 8,850/month**

No Cost EMI

 **Razorpay**

 **LIQUILOANS**

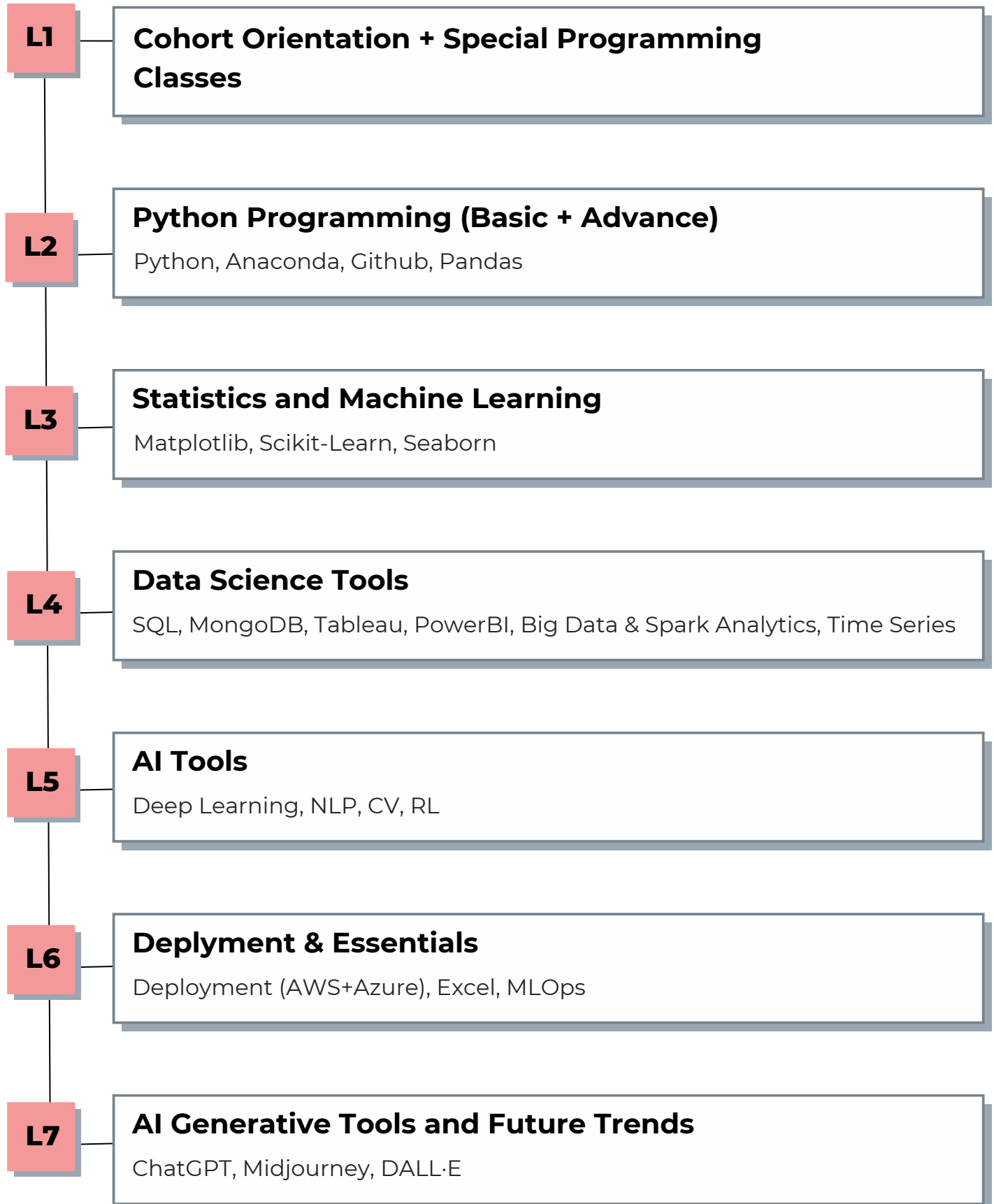
 **Propelld**

 **ShopSe**

Program Fee

Rs. 1,35,000/- +18% GST

Learning Path





Preparatory Session

08 Hours

Cohort Orientation

- A brief introduction to tools related to data
- Learn about particular real-time projects and Capstone projects
- Data and its impact on career opportunities
- Utilizing data, to enhance industrial operations and management

Fundamentals of Programming

- Introduction to Anaconda & Jupyter notebook
- Flavors of python
- Introduction to Git, GitHub
- Python Fundamentals

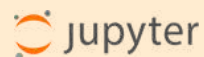
Tools covered



python™



ANACONDA



jupyter



GitHub

Fundamentals of Statistics

- Mean, Median, Mode
- Standard Deviation, Average. Probability, Permutations, and Combinations
- Introduction to Linear Algebra

Note:

This session is specially designed for non- programmers to understand basics of computer programming and math.

Those who wish to brush up their programming skills can also attend this session.

[Download Detailed Curriculum](#)



Python programming

40 Hours

Basic Python

- Programming Basics & Environment Setup
- Strings, Decisions & Loop Control
- Python Data Types
- Functions And Modules
- File I/O And Exceptional Handling and Regular Expression

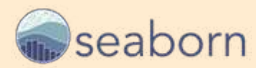
Class Hands-on:

6 programs/coding exercise on string, loop and conditions

8+ Programs to be covered in class of functions, Lambda, modules, Generators and Packages

10+ Programs to be covered in class from File IO, Reg-ex and exception handling

Tools covered



Advance Python

- Data Analysis Using Numpy
- Data Analysis Using Pandas
- Data Visualization using Matplotlib
- Data Visualization using Seaborn



3 Case Study on Numpy, Pandas, Matplotlib

1 Case Study on Pandas And Seaborn

Real time project will be covered after Python completion with 2 hours of assessment (coding and objective questions)

Download Detailed Curriculum



Statistics and Machine Learning

70 Hours

Statistics

- Fundamentals of Math and Probability
- All about Population & Sample
- Statistical Thinking
- Descriptive & Inferential Statistics
- Hypothesis Testing
- Linear Algebra
- Data Processing & Exploratory Data Analysis

Hands-on:

Problem solving for C.L.T Problem solving Hypothesis Testing Problem solving for T-test, Z-score test Case study and model run for ANOVA, ANCOVA

Machine Learning

- Data Preprocessing
- Logistic Regression Model
- Evaluation Metrics for Classification model
- K Nearest Neighbours Model
- Decision Tree Model
- Random Forest Model
- Hyperparameter Tuning
- Naive Baye's Model
- K Means and Hierarchical Clustering
- Hierarchical Clustering
- Principal Component Analysis(PCA)
- Support Vector Machine(SVM)

Case studies:

- To classify an email as spam or not spam using logistic Regression
- Application of Linear Regression for Housing Price Prediction
- Recommendation Engine for e-commerce/retail chain
- Twitter data analysis using NLP

Note : *All Machine Learning Algorithms are covered in depth with real time case studies for each algorithm.*

[Download Detailed Curriculum](#)

Big Data Analytics and Visualization

86 Hours

SQL

- SQL and RDBMS
- NoSQL, HBase & MongoDB
- JSON Data & CRUD
- Programming with SQL

Assignments

- Working with multiple tables
- Practice Joins, Grouping and Subqueries
- Using GROUP BY and HAVING Clauses
- Practice Aggregation Queries

MongoDB

- MongoDB Ecosystem
- MongoDB Structures
- MongoDB Shell vs MongoDB Server
- Data Formats in MongoDB
- Working with MongoDB Compass
- Working with Numeric Data
- Working on Scheme Designing

Assignment

Obtain the data in the format you want by formulating queries that are both effective and high-performing.

Projects are the culmination of your learning journey, where you will tackle real data-related problems.

Tableau

- Dashboard and Stories
- Visual Analytics
- Custom Geocoding
- Polygon Maps
- WMS and Background Image

Assignments

- Connecting data source and data cleansing
- Working with various charts
- Deployment of Predictive model in visualization

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Big Data Analytics and Visualization

86 Hours

PowerBI

- Overview of the Workflow in Power BI Desktop
- Introducing the Different Views of the Data Mode
- Working with Time Series
- Scatterplots and BI Reports
- Connecting Dataset with Power BI

Assignments

- Create Bar charts
- Create Pie charts
- Create Tree maps
- Create Donut Charts
- Create Waterfall Diagrams
- Creating Table Calculations for Gender

Sparks Analytics

- Introduction To Hadoop & Big Data
- Hadoop Master: Slave Architecture
- MapReduce Architecture
- Introduction to Spark SQL and Data frames
- Using R-Spark for machine learning

Hands-on

- Map reduce Use Case 1: Youtube data analysis
- Map reduce Use Case 2: Uber data analytics
- Spark RDD programming
- Spark SQL and Data frame programming

Tools covered**Download Detailed Curriculum**



Big Data Analytics and Visualization

86 Hours

Time Series

- Basics of Time Series Analysis and Forecasting
- Method Selection in Forecasting
- Moving Average (MA) Forecast
- Different Components of Time Series Data
- Log Based Differencing, Linear Regression for Detrending
- ARIMA Model Calculations, Manual ARIMA Parameter
- Selection ARIMA with Explanatory Variables
- Understanding Multivariate Time Series and their Structure

Assignment

- Time series classification of smartphone data to predict user behavior
- Performing Time Series Analysis on Stock Prices
- Time series forecasting of sales data



As Term 3 concludes, the following phase will involve an extensive exploration of all modules. This will be complemented by practical examples, demanding assignments, and culminating with your Capstone Projects.

This approach aims to enhance your understanding and real-world application of the modules.

[Download Detailed Curriculum](#)

AI Tools

118 Hours

Deep Learning

- Neural Network
- Simple Computation, Constants, and Variables
- Back-propagation
- TensorBoard

NLP

- Natural Language
- Processing Text Analysis
- KNN
- Text Pre Processing
- Techniques Stemming

Computer Vision

- Computer Vision overview
- Image Filtering
- Image Processing
- Image Classification and segmentation

Reinforcement Learning

- What is Reinforcement Learning - Basics
- Approximation Methods for Reinforcement Learning

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Data Management and Deployment

20 Hours

Deployment AWS+Azure

- Data Preparation and Feature Engineering
- Model Training and Evaluation
- Model Deployment and Management
- Advanced Topics in Machine Learning on AWS and Azure

MLOps

- Introduction to MLOps
- Version Control for ML
- Containerization and Docker
- Orchestration with Kubernetes
- Continuous Integration (CI) for ML

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Essentials

Data Structures & Algorithms

- Array Overview
- String
- Linked List
- Queue
- Stack
- Trie
- Tree, Binary Search Tree and AVL Tree
- Segment Tree
- Graph & Recursion
- Introduction to recursion
- Backtracking Algorithm
- Searching
- Sorting
- Greedy Algorithm
- Pattern Searching
- Dynamic Programming

Excel

- Introduction to Excel
- Basic Formulas and
- Functions Data Formatting
- and Cell Styles Data Sorting
- and Filtering Charts and Graphs
- Data Validation and Protection
- PivotTables and PivotCharts
- Advanced Formulas and
- Functions Data Analysis Tools
- Excel Macros and Automation

Project Management

- Introduction to Excel
- Basic Formulas and Functions
- Data Formatting and Cell
- Styles Data Sorting and
- Filtering Charts and Graphs
- Data Validation and Protection
- PivotTables and PivotCharts
- Advanced Formulas and Functions
- Data Analysis Tools
- Excel Macros and Automation



Essentials

140 Hours

Business Analytics

- Introduction to Business Analysis
- Stakeholders in Business Analysis
- Formulating Requirements
- Flowchart and Modelling
- Analysing and Transforming Requirements
- Finalising Requirements

Download Detailed Curriculum



AI Generative Tools and Future Trends



Emerging Trends in AI and Generative Modeling

- Exploring other AI generative tools beyond [ChatGPT](#) and [DALL·E](#)
- Overview of Midjourney
- Discussion on future trends and advancements in AI generative tools
- Open-ended project and/or presentation on a selected topic, incorporating learned concepts

Natural Language Processing and ChatGPT

- Introduction to natural language processing techniques
- Understanding ChatGPT and its architecture
Hands-on exercises using ChatGPT for text generation
- [Fine-tuning ChatGPT for specific applications](#)



Midjourney



Bing



ChatGPT



DALL·E



Bard

DALL·E: Image Generation with AI

- Exploring image generation using DALL·E
- [Hands-on exercises for creating unique images with DALL·E](#)
- Ethical considerations and limitations of AI-generated images

Graph Neural Networks (GNN) for Data Analysis

- Overview of [Graph Neural Networks \(GNN\)](#) and their applications
- Hands-on exercises using GNN for tasks such as node classification and link prediction
- Case studies on real-world applications of GNN in data science

Python Bootcamp for AI

- Python Essentials: Syntax, Data Types, and Variables
- Flow Control: Conditionals and Loops

Build Your Interview Assistant

- Project Overview: Interview Automation Bot
- Components & Architecture
- Natural Language Models (LLMs): Introduction and Uses

Large Language Models (LLM)

- Historical Overview of NLP: From Rule-Based Systems to Machine Learning.
- Evolution of Neural Network Architectures in NLP.

Visual AI for eCommerce

- Introduction: Digital Transformation for Offline Businesses
- Multimodal Models: DALL-E and Beyond
- Style & Photography Principles for Visual AI

Intelligent News Aggregator

- Project Outline: Personalized News Recommendation
- GPT-3 & Copilot for Code Automation

Customer Support Bot - HelpMate Pro

- Project Introduction and Components
- Embeddings vs Fine-Tuning: When an
- How Semantic Search in Customer Service

Knowledge Discovery Bot

- Project Overview and Architecture
- LangChain Tools and Concepts

Azure OpenAI Integration

- OpenAI on Azure: Services and Scalability
- Revisiting HelpMate Pro: Scaling Strategy

The Future & Ethics of Generative AI

- Responsible AI: Bias and Fairness
- Future Trends: Multimodal Models and RLHF
- Closing Remarks
- Assessment: MCQ

Capstone Project (3 Weeks)

- Building an Integrated Prompt Engineering Solution
- Project Submission and Peer Review



The **IBM** exam will be conducted for all the modules after completion of the course

Real-time Projects

J.P.Morgan

Learn and develop classification techniques for the digital transformation of banking

JPMorgan offers tax-friendly insurance choices. You can help them forecast insurance premiums. Targeted marketing using your Random Forest Algorithm skills can help obtain better premium values.



NETFLIX

Building a content recommendation model on the basis of regional viewer categorization

Netflix is a global entertainment video streaming site. They offer content in various regional languages. Build a local recommendation engine for Netflix customers residing in south Bangalore on their weekend and weekday activities, utilizing NLP.



Reduction of waiting time via a highly precise forecasting model

Make a demand forecasting model based on specific time period rider demands. Such a model will help both riders and cab drivers to ensure the least possible waiting time. You can include measures like latitude and longitude identification.



Understanding in-depth about logging while drilling (LWD) technique

Saudi Aramco company is working on the development of high-efficiency drilling models. Use the bright sides of big data analytics to identify the most cost-effective and highly productive drilling sites.



Real-time Projects



Career progression planning of employees with workforce defections and efficiency

IBM intends to boost its HR department by identifying employees' masked inconsistency. They need models to identify the graphical variations in their 14000+ employees' performances. Help them build models with your regressions and other ML abilities.



Descriptive study of trends and irregularities with prediction analysis for conversion

Swiggy seeks a broad marketing campaign. But they need automated keyword generation tools & proper message preparation and delivery of the same to the right audience at the right time. Help them with text analytics and NLP-based keyword research.



Forecasting future sales with trends and price maximization

BMW customers can sell old vehicles, but rivals provide superior resale prices. BMW's data science-powered software will deliver the greatest market value for used vehicles based on Km travelled, daily price changes, production dates, etc. Such tasks build analytical abilities.



Understanding covid-19 cases and fatality rate by time series forecasting

Samsung will launch a new healthcare app soon. The key goal of this app is an accurate human activity tracking and providing relevant health-related recommendations. Continuous analysis with of a massive amount of mobile data is required for such an app.



Real-time Projects



Churn forecasting for the telecom industry using Python programming with Machine Learning

The goal of this project is to design a precise customer churn prediction model. Based on the same, Jio can identify the exact reason for customer dissatisfaction and work accordingly.



XGBoost



Recommendation system with Customer Lifetime Value (CLV) analysis

Amazon wants to find the most successful electronics. Live consumer reviews are needed. Using data visualisation, help regenerate consumer insights from ongoing and current reviews.



Condition-based preventative maintenance and fault prediction in depth

This project helped BOSCH to predict their internal failures by production line dataset analysis. But still, they are struggling to predict automated faults in their assembly stage. Help them by building more advanced predictive models for assembly stage monitoring.



Automated inventory monitoring for supportable supply chain management

An automated inventory management system will keep track of stock levels and upcoming orders. In addition, you can contribute to DataCo's intelligent supply chain software generation project by using ML algorithms and Python programming skills.



Contact Us



[Click here to whatsapp](#)

or call us at
+91 77956 87988

www.learnbay.co