



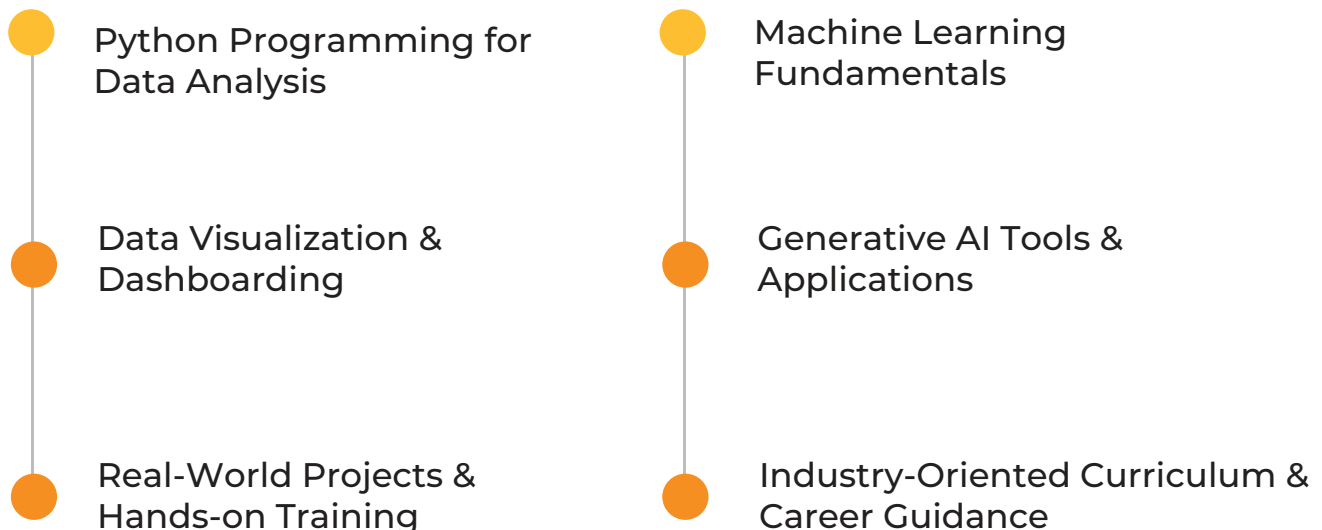
DRIVE THE **Future**

**PYTHON DATA
ANALYTICS & GEN AI**

Drive the Future with Python Data Analytics & Generative AI

Master the power of Python to analyze data, create impactful visualizations, build machine learning models, and explore cutting-edge Generative AI applications. This hands-on program equips you with industry-relevant skills through real-world projects, preparing you for high-demand careers in data analytics, AI, and intelligent automation

Course Highlights



6-Month Professional Certification Programme

MODULE 1: Excel for Business Analytics

- Introduction to Data Analytics
- Excel Fundamentals
- Functions & Formulas (IF, XLOOKUP, INDEX-MATCH)
- Data Cleaning & Formatting
- Pivot Tables & Charts
- Conditional Formatting
- Dashboards & Reports
- Business Case Studies

MODULE 2: SQL for Data Analytics

- Database Fundamentals
 - SQL Queries (SELECT, WHERE, GROUP BY, HAVING)
 - Joins & Relationships
 - Subqueries & CTEs
 - Window Functions
 - Case Statements
 - Query Optimization
 - SQL Projects
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MODULE 3: Python Programming for Data Analytics

- Python Fundamentals
- Variables, Loops & Functions
- File Handling
- Object-Oriented Programming Basics
- NumPy
- Pandas
- Data Cleaning & Wrangling
- Working with CSV, Excel & APIs
- Python Projects

MODULE 4: Exploratory Data Analysis & Visualization

- Exploratory Data Analysis (EDA)
- Descriptive Statistics
- Data Distribution Analysis
- Matplotlib
- Seaborn
- Plotly Interactive Charts
- Business Insights
- Data Storytelling
- EDA Case Studies

MODULE 5: Statistics for Data Analytics

- Probability
- Descriptive Statistics
- Inferential Statistics
- Hypothesis Testing
- t-Test
- ANOVA
- Chi-Square Test
- Correlation & Regression Basics
- Statistical Decision Making

MODULE 6: Power BI for Business Intelligence

- Power BI Desktop
- Data Import & Transformation
- Power Query
- Data Modeling
- DAX Fundamentals
- Interactive Dashboards
- Publishing Reports
- Business Intelligence Projects





MODULE 7: Generative AI for Data Professionals

- Introduction to Generative AI
- Large Language Models (LLMs)
- ChatGPT, Claude & Gemini
- Prompt Engineering
- AI-assisted Data Analysis
- AI for Excel, SQL & Python
- AI-powered Report Generation
- AI Image & Presentation Tools
- AI Ethics & Responsible AI

MODULE 8: Python Automation with AI

- Python Automation
- Web Scraping
- Working with APIs
- Automating Excel & Reports
- Email Automation
- AI-powered Data Pipelines
- Scheduling Analytics Tasks
- Automation Projects

MODULE 9: Retrieval-Augmented Generation (RAG) & AI Applications

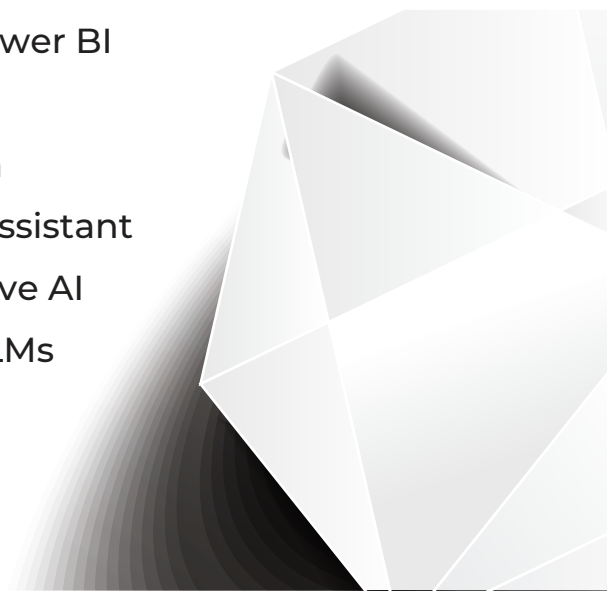
- Introduction to LangChain
- Vector Databases
- Embeddings
- RAG Concepts
- Building AI Chatbots
- AI Agents Basics
- Document Question Answering
- Business AI Applications

MODULE 10: Capstone Projects & Career Preparation

- Retail Sales Dashboard
- HR Analytics Project
- Financial Analytics Dashboard
- Healthcare Data Analysis
- Customer Segmentation
- AI-powered Business Analyst Project
- GitHub Portfolio Development
- Resume Building
- LinkedIn Optimization
- Mock Interviews

Major Projects

- Sales Analytics Dashboard using Power BI
- HR Analytics Dashboard
- Financial Data Analysis with Python
- AI-Powered Business Intelligence Assistant
- Chat with Excel/CSV using Generative AI
- Business Report Generator using LLMs
- Customer Insights Dashboard
- Final Industry Capstone Project





Course Features

- Weekly 3 Live Sessions
- Assured Internship
- Certification
- Monthly Offline Sessions
- Placement Assistance
- 5+ Years of Trust
- 1 Lakh+ Learners