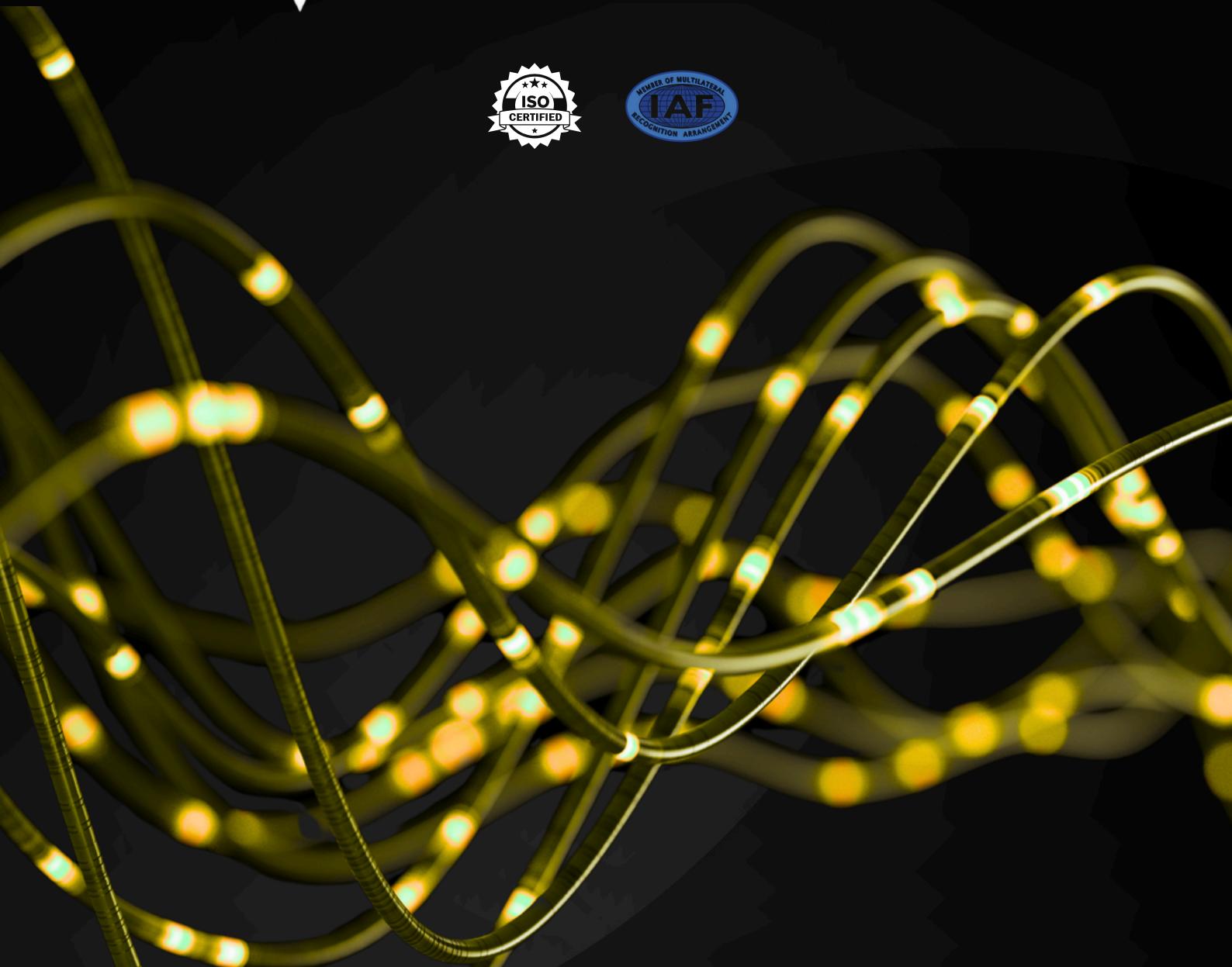




Aspire Tech Academy

Empowering Minds, Transforming Futures



Data Science Artificial intelligence

To initiate your journey, the first step is to register for our Data Science Program—an inclusive opportunity open to all individuals aspiring to become industry-ready. This program offers hands-on training through specialized projects, providing participants with a comprehensive learning experience.

Enroll in Data Science

Throughout the program, you will receive extensive training on the most sought-after skills and gain exposure to essential tools and technologies, including but not limited to Introduction to Python, SQL Fundamentals, Introduction to Excel, Deep learning with Keras and TensorFlow, Statistical and machine Learning Foundation and Data Visualization with Power BI & Tableau and more.

Upon enrollment, you will have the opportunity to explore various roles in the industry, including Machine Learning Engineer, Senior Data Analyst ,Big Data Engineer, Business Intelligence (BI) Analyst, Senior Data Engineer, Data Architect and many more. Our carefully designed learning path covers all fundamental concepts of Data Science, enabling you to fast-track your career growth, earn a recognized certificate, and acquire the highly coveted skills actively sought after by top companies.

Below, you'll find additional details and features about this learning path, providing you with a roadmap to success in the dynamic field of Data Science.



Lifetime LMS
Access



Corporate
Communication Training



24*7 Dedicated
Learner Support



Job Ready in 20
Weeks

The Future of Work: Upskilling for a Data Science AI-Driven World

Market Growth:

- The global data science market is projected to reach \$230.80 billion by 2030, growing at a CAGR of 14.7% from 2023 to 2030.

Job Demand:

- By 2025, 97 million new roles in AI and data science are expected globally (World Economic Forum).
- Data scientist positions are predicted to grow by 36% from 2021 to 2031 (U.S. Bureau of Labor Statistics).
- **Over 70% of businesses plan to adopt advanced analytics and AI by 2025.**

The Skills Gap

75%

of companies face AI skills shortages

(Source: Gartner)

50%

of professionals require retraining by 2025

(Source: McKinsey)

90%

of employees lack essential AI skills

(Source: IBM)

Upskilling Benefits

Boosts employability by 70%

(Source: LinkedIn)

Increases salary potential by 25%

(Source: Glassdoor)

Enhances productivity by 30%

(Source: Accenture)

Why choose to learn Data Science with Aspire Tech Academy?



Live Classes on Weekdays(Mon-Sat) by Industry Experts



Beginner Friendly Curriculum
Everything will be Taught from Scratch



Recordings of live classes can access through LMS for lifetime



Guaranteed Certification
Learner will get post Completion



Dedicated Mentorship
To Boost up of your Confidence



24*7 Learner Support
from Teaching assistance & Peer Groups



Easy Doubt Resolution
Through Teachers/Peer Groups



Job Ready Projects
Based on real-world scenarios



Crack Interviews with ease
With our 50+Mock Sessions

Curriculum Overview



Python



MySQL



AI Fundamentals



Machine Learning



Deep learning with Keras and TensorFlow



Power BI

Our Curriculum: **Module 1 : Python**

Introduction to Python and Data Science:

Understanding the role of Python in data science and setting up the development environment.

Working with Python Data Structures:

Exploring lists, tuples, dictionaries, and sets for efficient data storage and manipulation.

Control Flow Statements:

Implementing decision-making using if-else statements and loops (for, while) to control the flow of programs.

Functions in Python:

Defining reusable code blocks with functions, understanding scope, and utilizing lambda expressions for concise functions.

File Handling in Python:

Reading from and writing to files, managing file operations, and handling exceptions during file processing.

Regular Expressions:

Utilizing regex for pattern matching and text processing tasks.

Object-Oriented Programming (OOP):

Understanding classes and objects, inheritance, polymorphism, encapsulation, and other OOP principles.

Advanced Data Structures in Python:

Implementing stacks, queues, linkedlists, and trees for complex data management.

Python for Data Visualization:

Creating visual representations of data using libraries like Matplotlib, Seaborn, Plotly, and Cufflinks.

Extracting and Aggregating Data:

Manipulating data with Pandas for extraction, aggregation, and analysis tasks.

Module 2 : MySQL

Introduction to SQL and MySQL:

Understanding the basics of Structured Query Language (SQL) and its implementation using MySQL.

Data Creation and Retrieval:

Learning how to create databases and tables, insert data, and retrieve information using SELECT statements.

Data Filtering:

Applying WHERE clauses to filter data based on specific conditions.

Data Analysis Using Aggregate Functions and GROUP BY:

Utilizing aggregate functions like SUM, AVG, COUNT, MIN, and MAX in conjunction with the GROUP BY clause to perform data analysis.

Joins and Keys:

Understanding primary and foreign keys, and performing various types of joins (INNER, LEFT, RIGHT, FULL) to combine data from multiple tables.

MySQL Joins:

Deep dive into join operations in MySQL to efficiently query relational databases.

Subqueries and Views:

Writing subqueries to perform nested queries and creating views to simplify complex queries.

Window/Analytical Functions:

Implementing window functions to perform advanced calculations across sets of table rows.

Module 3 : AI Fundamentals

Introduction to AI :

- Definition and history of AI.
- Distinguishing between AI, machine learning, and deep learning.
- Real-world applications of AI in sectors like healthcare, finance, and transportation

Machine Learning Basics:

- Understanding supervised, unsupervised, and reinforcement learning.
- Familiarity with common algorithms such as regression, classification, and clustering.

Natural Language Processing (NLP):

- Exploring how machines process and understand human language.
- Applications like chatbots, sentiment analysis, and language translation.

Computer Vision:

- Introduction to how machines interpret visual information.
- Use cases including image recognition, facial recognition, and autonomous

Ethical Considerations in AI:

- Discussing the ethical implications of AI deployment.
- Topics such as bias, fairness, transparency, and accountability.

AI Services and Tools:

- Overview of AI platforms and services, such as Microsoft Azure AI.
- Hands-on experience with tools for building and deploying AI models.

Microsoft Azure AI Fundamentals:

- Focuses on AI and machine learning concepts, along with related Microsoft Azure services.
- Suitable for individuals with both technical and non-technical backgrounds.
- No prior data science or software engineering experience required.

Google AI Essentials:

- A self-paced course designed to teach the basics of AI and how to use generative AI tools to boost productivity.

Module 4 : Machine Learning

Types of Machine Learning:

Understanding supervised, unsupervised, and reinforcement learning paradigms.

Modeling with Linear Regression:

Applying linear regression techniques to model relationships between variables.

Evaluating Models & Feature Selection:

Assessing model performance using various metrics and selecting relevant features to improve model accuracy.

Regularization Techniques:

Implementing methods like Lasso and Ridge regression to prevent overfitting.

Modeling with Logistic Regression:

Utilizing logistic regression for binary classification problems.

Understanding Other Classification Algorithms:

Exploring algorithms such as K-Nearest Neighbors (KNN) and support Vector Machines (SVM) for classification tasks.

Advanced Model Evaluation Techniques:

Employing cross-validation and other advanced methods to evaluate model performance.

Module 5 : Deep Learning

Building Blocks of Deep Learning:

Understanding the core components and principles that form the basis of deep learning.

Understanding the Components of a Neural Network:

Exploring the structure and function of neural networks, including neurons, layers, and activation functions.

Introduction to Convolutional Neural Networks (CNNs):

Learning about CNNs, which are specialized neural networks primarily used for processing structured grid data like images.

Overview of Transfer Learning:

Discussing the concept of transfer learning, where a pre-trained model is adapted to perform a new but related task, enhancing efficiency and performance.

Overview of Autoencoders:

Learning about autoencoders, a type of neural network used for unsupervised learning tasks.

Introduction to Recurrent Neural Networks (RNNs):

Delving into RNNs, which are designed to recognize patterns in sequences of data.

Introduction to Transformers:

Introducing transformer models, which have revolutionized natural language processing tasks by enabling efficient handling of sequential data without relying on traditional RNN architectures.

Module 6 : Data Visualization(PowerBI)

Introduction to Power BI:

- Overview of Power BI's interface and functionalities.
- Understanding the importance of data visualization in data science.

Data Import and Transformation:

- Loading data from various sources.
- Cleaning and preparing data using Power Query.

Visualization Basics:

- Creating basic charts like bar graphs, line charts, and scatter plots.
- Designing tables and matrix views.

Advanced Visualization Techniques:

- Leveraging slicers and filters for interactivity.
- Using hierarchical data visualization tools (e.g., tree maps, drill-down features).

Power BI Service:

- Publishing reports and dashboards to the Power BI cloud.

Dashboard Creation:

- Combining multiple visualizations into an interactive dashboard.
- Best practices for designing impactful dashboards.

Calculated Fields and DAX:

- Writing custom measures and calculated columns using DAX.
- Aggregation, time intelligence, and advanced calculations.

Tools Covered



Bonus Topics Covered



ChatGPT



Generative AI



Cloud Computing



Azure

Data Science Artificial Intelligence

Course Duration: 6 months

**Complete Course Fee:
INR 50,000 + GST**

Get Up to 30% Scholarship

Talk to the admission team to know how?

Unlock your future in one of the most in-demand fields today—Data Science! Whether you're from a technical or non-technical background, this course is designed to take you from the basics to advanced concepts with hands-on projects and real-world applications. Learn from industry experts, build a strong portfolio, and gain the skills employers are actively looking for. With career support, personalized mentorship, and a job-oriented curriculum, now is the perfect time to take the first step toward a high-growth career in Data Science. Enroll now and transform your potential into a profession!



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To know in detail about the program and its prospects,
get in touch with our academic counselors today!



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