Artificial Intelligence for Data Analytics

Duration: 20 hours

Course Outcomes

1. Gain hands-on expertise in data analytics using Snowflake, and Python.

Pre-requisites: Knowledge of basic mathematics

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1. Data Acquisition and Manipulation using Snowflake

Gain expertise in cloud-based data warehousing and analytics using Snowflake.

Topics Covered: Snowflake Architecture Overview, Databases & Schemas, Snowflake SQL Fundamentals, Filtering Data, Aggregate Functions, Joins & Subqueries, Views, Time Travel & Zero-Copy Cloning, Working with Date and Time Functions, Data Loading Basics.

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2. Data Visualization using Snowflake

Analyze and prepare data for visualization using Snowflake as the central analytics layer.

Topics Covered: Snowflake for Analytics & Reporting, Query Optimization for Dashboards, Secure Data Sharing, Data Modeling for Analytics, Integration with BI Tools (Overview), Building Business KPIs from Snowflake Data.

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3. Fundamentals of Python Programming

Learn Python programming basics, object-oriented principles, and multithreading for data analytics applications.

Topics Covered: Python Syntax, Data Types, Conditional Statements, Loops, Functions, OOP, Multithreading.

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4. Data Analytics with Python

Explore Python libraries (Pandas, NumPy, Matplotlib) for data manipulation, statistical analysis, and machine learning applications.

Topics Covered: Data Acquisition, Correlation & Regression, Hypothesis Testing, Probability Distributions, Time Series Analysis.
