Personalized Learning Plan

Create Study Schedule

Study Plan for B.Tech AI & DS - Data Analytics and Visualization

Week 1-2:

Module I - Introduction to Data Quality & Preprocessing

Understanding the importance of data quality and preprocessing in data analytics. Introduction to the concept of a typical credit card fraud dataset and the importance of various features.

Week 3-4:

Module II - Data Quality Assessment

In-depth analysis of data quality aspects such as completeness, accuracy, consistency, and uniqueness. Learning to evaluate the quality of the dataset.

Week 5-6:

Module III - Data Preprocessing: Data Understanding

Exploratory data analysis and univariate analysis to understand the data better. Introduction to dimensionality reduction techniques.

Week 7-8:

Module IV - Data Preprocessing: Data Cleaning

Advanced techniques for data cleaning including missing value imputation, outlier detection, and data cleaning validation.

Week 9-10:

Module V - Data Transformation

Feature engineering strategies to transform data, including transaction frequency features, velocity features, CNP transactions, and time decay features.

Week 11-12:

Module VI - Data Integration

Addressing challenges associated with data integration, such as standardization across sources and data deduplication.

Week 13-14:

Module VII - Data Validation

Introduction to robust checks for data validation, including data profiling and schema validation.

Week 15-16:

Module VIII - Additional Considerations

Understanding class imbalance and techniques to address it. Ensuring that the preprocessing pipeline is applied identically to both training and testing data.

Week 17-18:

Module IX - Case Study Review

Review of the case study on credit card fraud detection model, reinforcing the concepts learned throughout the course and applying them in a real-world scenario.

This study plan is formulated to ensure a comprehensive understanding of the course while maintaining a steady learning pace.

End of Plan

Thank you for using Aura's Learning Plan Generator!