

Managing Data Science Projects

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Course Number: DS-2301

Duration: 2 days

Overview

Course Description

Successfully managing data science projects requires a blend of technical expertise and strategic oversight. This data science course provides a comprehensive guide to managing these projects from inception to deployment. Participants learn to navigate the complexities of data science workflows, address common challenges, and implement best practices for team collaboration and project management. Through practical case studies and hands-on labs, they gain the skills needed to lead data science projects that deliver measurable business value.

Skills Gained

By the end of this course, participants will be able to:

- Manage data science projects to meet business goals
- Solve common project issues to keep on track
- Improve teamwork and communication
- Ensure ethical use of data and AI
- Use data science to boost business results

Who Can Benefit

- Project or Program Managers
- Senior Managers

Prerequisites

- Practical project management experience

Software

All attendees must have a modern web browser and an Internet connection.

Audience

Course Details

Introduction to Data Science Principles

- Overview of Data Science
- The Data Science Workflow
- Essential Tools for Data Science
- Understanding Data Types & Structures
- Statistical and Machine Learning Concepts

Understanding the Data Science Workflow

- Introduction to the Data Science Workflow
- Problem Definition
- Data Collection, Cleaning & Preprocessing
- Exploratory Data Analysis (EDA)
- Feature Engineering
- Model Selection & Training
- Model Evaluation & Tuning
- Deployment & Monitoring

Activities and Challenges of Data Science

- Key Activities in Data Science
- Addressing Poor Data Quality
- Handling Big Data
- Choosing the Right Model
- Dealing with Imbalanced Datasets
- Ethical & Legal Issues

Data Science Goals and Metrics

- Data Science Goals and Metrics
- Defining Data Science Goals
- Key Metrics in Data Science

Managing Data Science Teams

- Building a Strong Data Science Team
- Managing Data Science Workflows & Projects
- Communication & Collaboration in Data Science Teams
- Scaling & Optimizing Data Science Teams
- Ethical & Responsible AI Management

Data Science Ethics and Risk Management

- Introduction to Data Science Ethics & Risk Management
- Key Ethical Principles in Data Science
- Risk Management in Data Science
- Implementing Ethical AI & Risk Management Strategies
- Case Studies in Ethical AI & Risk Management