

1. SOLVING BUSINESS PROBLEMS USING AI AND ML

- Topic A: Identify AI and ML Solutions for Business Problems

Topic B: Formulate a Machine Learning Problem

Topic C: Select Approaches to Machine Learning

2. PREPARING DATA

- Topic A: Collect Data

Topic B: Transform Data

Topic C: Engineer Features

Topic D: Work with Unstructured Data

3. TRAINING, EVALUATING, AND TUNING A MACHINE LEARNING MODEL

- Topic A: Train a Machine Learning Model

Topic B: Evaluate and Tune a Machine Learning Model

4. BUILDING LINEAR REGRESSION MODELS

- Topic A: Build Regression Models Using Linear Algebra

Topic B: Build Regularized Linear Regression Models

Topic C: Build Iterative Linear Regression Models

5. BUILDING FORECASTING MODELS

- Topic A: Build Univariate Time Series Models

Topic B: Build Multivariate Time Series Models

6. BUILDING CLASSIFICATION MODELS USING LOGISTIC REGRESSION AND K-NEAREST NEIGHBOR

- Topic A: Train Binary Classification Models Using Logistic Regression

Topic B: Train Binary Classification Models Using k-Nearest Neighbor

Topic C: Train Multi-Class Classification Models

Topic D: Evaluate Classification Models

Topic E: Tune Classification Models

7. BUILDING CLUSTERING MODELS

- Topic A: Build k-Means Clustering Models

Topic B: Build Hierarchical Clustering Models

8. BUILDING DECISION TREES AND RANDOM FORESTS

- Topic A: Build Decision Tree Models

Topic B: Build Random Forest Models

9. BUILDING SUPPORT-VECTOR MACHINES

- Topic A: Build SVM Models for Classification

Topic B: Build SVM Models for Regression

10. BUILDING ARTIFICIAL NEURAL NETWORKS

- Topic A: Build Multi-Layer Perceptrons (MLP)

Topic B: Build Convolutional Neural Networks (CNN)

Topic C: Build Recurrent Neural Networks (RNN)

11. OPERATIONALIZING MACHINE LEARNING MODELS

- Topic A: Deploy Machine Learning Models

Topic B: Automate the Machine Learning Process with MLOps

Topic C: Integrate Models into Machine Learning Systems

12. MAINTAINING MACHINE LEARNING OPERATIONS

- Topic A: Secure Machine Learning Pipelines

Topic B: Maintain Models in Production