

AWS - Practical Data Science with Amazon SageMaker

Code:	AWS-PDSASM
Length:	1 days
URL:	View Online

Prerequisite Courses

Essentials for Getting Started - AWS Technical Essentials

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In this intermediate-level course, individuals learn how to solve a real-world use case with Machine Learning (ML) and produce actionable results using Amazon SageMaker. This course walks through the stages of a typical data science process for Machine Learning from analyzing and visualizing a dataset to preparing the data, and feature engineering. Individuals will also learn practical aspects of model building, training, tuning, and deployment with Amazon SageMaker. Real life use cases include customer retention analysis to inform customer loyalty programs.

Skills Gained

- Prepare a dataset for training
- Train and evaluate a Machine Learning model
- Automatically tune a Machine Learning model
- Prepare a Machine Learning model for production
- Think critically about Machine Learning model results

Who Can Benefit

- Developers
- Data Scientists

Course Details

Module 1: Introduction to Machine Learning

- Types of ML
- Job Roles in ML
- Steps in the ML pipeline

Module 2: Introduction to Data Prep and SageMaker

- Training and Test dataset defined
- Introduction to SageMaker
- Demo: SageMaker console
- Demo: Launching a Jupyter notebook

Module 3: Problem formulation and Dataset Preparation

- Business Challenge: Customer churn
- Review Customer churn dataset

Module 4: Data Analysis and Visualization

- Demo: Loading and Visualizing your dataset
- Exercise 1: Relating features to target variables
- Exercise 2: Relationships between attributes
- Demo: Cleaning the data

Module 5: Training and Evaluating a Model

- Types of Algorithms
- XGBoost and SageMaker
- Demo 5: Training the data
- Exercise 3: Finishing the Estimator definition
- Exercise 4: Setting hyperparameters
- Exercise 5: Deploying the model
- Demo: Hyperparameter tuning with SageMaker
- Demo: Evaluating Model Performance

Module 6: Automatically Tune a Model

- Automatic hyperparameter tuning with SageMaker
- Exercises 6-9: Tuning Jobs

Module 7: Deployment / Production Readiness

- Deploying a model to an endpoint
- A/B deployment for testing
- Auto Scaling
- Demo: Configure and Test Autoscaling
- Demo: Check Hyperparameter tuning job
- Demo: AWS Autoscaling
- Exercise 10-11: Set up AWS Autoscaling

Module 8: Relative Cost of Errors

Related Certifications

Authorized training from ExitCertified is created and maintained by the vendor who also creates the certification exams. While it may not be a requirement of certification to attend a vendor-authorized training class, doing so will put you in the best position to successfully complete the related exams. Start training and begin working towards one of the following certifications today.

Specialty

AWS Certified Machine Learning - Specialty

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Follow-on Courses

Browse the suggested follow-on courses below and continue your training journey. We offer training in various learning formats, from instructor-led to virtual, so you can choose what works best for you. Get started by selecting a course to learn more.

Machine Learning & Artificial Intelligence (AI) - The Machine Learning Pipeline on AWS

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Development - Comprehensive Machine Learning

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