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AWS

The Machine Learning Pipeline on AWS

Due to Covid-19 safety restrictions PhoenixTS will temporarily be unable to provide food to our students who attend class at our Training Center; however, our Break Areas are **currently open** where students will find a constant supply of Coffee, Tea and Water. Students may bring their own lunch and snacks to eat in our breakrooms or at their seat in the classroom or eat out at one of the many nearby restaurants.

Course Overview

In this 4-day AWS course, students will gain knowledge about each stage of the Machine Learning pipeline to solve different business problems and create projects using Amazon SageMaker. The course will teach students:

- How to use ML to solve different problems
- Implement an ML model into Amazon SageMaker
- Apply machine ML to real life business problems

Schedule

Currently, there are no public classes scheduled. Please contact a Phoenix TS Training Consultant to discuss hosting a private class at 240-667-7757.

Who Should Attend

This course is intended for:

- Developers
- Solutions Architects
- Data Engineers
- Anyone with little to no experience with ML and wants to learn about the ML pipeline using Amazon



PhoenixTS

SageMaker

301-258-8200 | Sales@PhoenixTS.com | www.PhoenixTS.com

Prerequisites

We recommend that attendees of this course have:

- Basic knowledge of Python programming language
- Basic understanding of AWS Cloud infrastructure (Amazon S3 and Amazon CloudWatch)
- Basic experience working in a Jupyter notebook environment

Duration

4 Days

Price

\$2,995

Course Outline

Module 1: Introduction to Machine Learning and the ML Pipeline

- Overview of machine learning, including use cases, types of machine learning, and key concepts
- Overview of the ML pipeline
- Introduction to course projects and approach

Module 2: Introduction to Amazon SageMaker

- Introduction to Amazon SageMaker
- Demo: Amazon SageMaker and Jupyter notebooks
- Hands-on: Amazon SageMaker and Jupyter notebooks

Module 3: Problem Formulation

- Overview of problem formulation and deciding if ML is the right solution
- Converting a business problem into an ML problem
- Demo: Amazon SageMaker Ground Truth
- Hands-on: Amazon SageMaker Ground Truth
- Practice problem formulation
- Formulate problems for projects



Module 4: Preprocessing

- Overview of data collection and integration, and techniques for data preprocessing and visualization
- Practice preprocessing
- Preprocess project data
- Class discussion about projects

Module 5: Model Training

- Choosing the right algorithm
- Formatting and splitting your data for training
- Loss functions and gradient descent for improving your model
- Demo: Create a training job in Amazon SageMaker

Module 6: Model Evaluation

- How to evaluate classification models
- How to evaluate regression models
- Practice model training and evaluation
- Train and evaluate project models
- Initial project presentations

Module 7: Feature Engineering and Model Tuning

- Feature extraction, selection, creation, and transformation
- Hyperparameter tuning
- Demo: SageMaker hyperparameter optimization
- Practice feature engineering and model tuning
- Apply feature engineering and model tuning to projects
- Final project presentations

Module 8: Deployment

- How to deploy, inference, and monitor your model on Amazon SageMaker
- Deploying ML at the edge
- Demo: Creating an Amazon SageMaker endpoint

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Starting at **\$2,995**

ATTENTION

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[240.667.7757](tel:240.667.7757)

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