

Syllabus: Machine Learning on Azure

Instructor

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Office Location

Microsoft Teams

Questions? Please submit them in advance of scheduled office hours at:

<https://aka.ms/university-azure/questions>

Course Overview

In this workshop, you will learn the most important concepts of the machine learning workflow that data scientists follow to build an end-to-end data science solution on Azure. You will learn how to find, import, and prepare data, select a machine learning algorithm, train, and test the model, and deploy a complete model to an API. You will get tips, best practices, and resources you and your team need to continue your machine learning journey, build your first model, and more.

In this course, we will cover the following topics:

- Basics of machine learning
- How to select the right machine learning algorithm for your data science scenario
- How Azure Machine Learning tools can accelerate your machine learning journey
- How to use Automated Machine Learning to optimize your machine learning deployment flow

And you will complete the following hands-on exercises:

- Build a machine learning model with Azure Machine Learning designer
- Deploy and consume a machine learning model with Azure Machine Learning designer
- Deploy your machine learning model on Azure

Course Materials

- On-demand course videos: <https://aka.ms/university-azure/MachineLearning>
- Scheduled Live Office Hours with Course Instructor

Course Videos

Video Name	Video Title	Video Description	Video Time
Video 2A	What is Machine Learning?	What machine learning is and how to select the right machine learning algorithm for your data science scenario.	10:17

Video 2B	Azure ML Tools	How Azure Machine Learning tools can accelerate your machine learning journey.	4:38
Video 2C	Exercise – Build a ML Model with Azure	<i>Exercise:</i> Build a machine learning model with Azure Machine Learning designer.	6:05
Video 2D	Exercise – Deploy and Consume a ML Model	<i>Exercise:</i> Deploy and consume a machine learning model with Azure Machine Learning designer.	3:44
Video 2E	Using Automated ML	How to use Automated Machine Learning to optimize your machine learning deployment flow.	7:04
Video 2F	Exercise – Deploy your ML Model on Azure	<i>Exercise:</i> How to deploy your machine learning model on Azure.	15:48

Prerequisites

- Complete the “Getting Started with Azure” course by Alex Vazquez. Video series is available here: <https://aka.ms/university-azure/GettingStartedAzure>

Additional Resources

- Microsoft Learn - Azure fundamentals: <https://docs.microsoft.com/en-us/learn/paths/azure-fundamentals/>
- Azure Machine Learning – <https://aka.ms/princeton-azure/azureML>
- Azure Machine Learning designer: www.aka.ms/AzureMLdesigner
- Azure Machine Learning: www.aka.ms/AzureMLservice
- Get started with Azure ML: www.aka.ms/GetStartedAzureML
- Deep Learning VS Machine Learning explained: www.aka.ms/DeepLearningVSMachineLearning
- Algorithm Cheat Sheet: www.aka.ms/AlgorithmCheatSheet
- AzureML GitHub: www.aka.ms/AzureMLGitHub
- Automated Machine Learning Documentation: www.aka.ms/AutomatedMLDocs
- What is Automated Machine Learning: www.aka.ms/AutomatedML
- Model Interpretability with Azure ML Service: www.aka.ms/AzureMLModelInterpretability

Course Schedule

Week	Subject
Week 1	Watch On-Demand Course Videos (on your own)
Week 2	Live Course Office Hours with Instructor
