

Legal name: Thaddeus Thomas MCID: 994556985

## Thaddeus Thomas

Username: ThaddeusThomas-9497

Contact email: thomasthaddeus@cityuniversity.edu

Number of active certifications

Number of modules completed

257

Number of exams passed

**Duration of modules completed** 

167 hr 50 min

### **Active certifications**

Certification title	Certification number	Earned on	Expires on
Microsoft Certified: Azure Al Fundamentals	BAF64U-9CF4A1	Apr 23, 2023	N/A
Microsoft 365 Certified: Fundamentals	V8AEA1-6F453F	Apr 22, 2023	N/A
Microsoft Certified: Power Platform Fundamentals	A07283-E9A7AA	Mar 21, 2023	N/A
Microsoft Certified: Security, Compliance, and Identity Fundamentals	77FC4G-849CFF	Mar 15, 2023	N/A
Microsoft Certified: Azure Data Fundamentals	9HFFD8-52E803	Mar 7, 2023	N/A
Microsoft Certified: Azure Fundamentals	CB416J-876125	Feb 19, 2023	N/A

### Passed exams

Exam title	Exam number	Passed date
Microsoft Azure Al Fundamentals	AI-900	Apr 23, 2023
Microsoft 365 Fundamentals	MS-900	Apr 22, 2023
Microsoft Power Platform Fundamentals	PL-900	Mar 21, 2023
Microsoft Security, Compliance, and Identity Fundamentals	SC-900	Mar 15, 2023
Microsoft Azure Data Fundamentals	DP-900	Mar 7, 2023
Microsoft Azure Fundamentals	AZ-900	Feb 19, 2023

# Modules completed

Module title	Description	Completed on	Duration
Create business value from Al	Understand the key elements that make a culture AI-ready and a framework to drive the change needed in your organization for a successful AI strategy.	Sep 18, 2023	21 min
Scale AI in your organization	Learn enterprise AI management with our free open online course, including scaling AI.	Sep 18, 2023	36 min
Embrace responsible AI principles and practices	Explore six principles to guide AI development and use - fairness, reliability and safety, privacy and security, inclusiveness, transparency, and accountability	Sep 18, 2023	48 min
Responsible Generative Al	A practical approach to implementing generative AI responsibly.	Sep 14, 2023	50 min

Module title	Description	Completed on	Duration
Use your own data with Azure OpenAl Service	Learn how to use your own data with the Azure OpenAl Service.	Sep 14, 2023	33 min
Build a question answering solution	Build a question answering solution	Aug 24, 2023	53 min
Custom name entity recognition	Custom name entity recognition	Aug 5, 2023	1 hr 3 min
Extract insights from text with the Language service	Extract insights from text with the Language service	Aug 5, 2023	57 min
Prepare to develop Al solutions on Azure	Prepare to develop AI solutions on Azure	Jul 27, 2023	31 min
Work with linting and unit testing in GitHub Actions	machine learning operations, MLOps, linter, linting, unit tests, code check	Jul 25, 2023	32 min
Analyze video	Analyze video	Jul 20, 2023	48 min
Introduction to GitHub Copilot	GitHub Copilot is an AI pair programmer that offers autocomplete-style suggestions as you code.	Jul 20, 2023	17 min
Translate text with the Translator service	Translate text with the Translator service	Jul 20, 2023	51 min
Build a Language Understanding model	The Language Understanding service enables you to train a language model that apps can use to extract meaning from natural language.	Jul 20, 2023	59 min
Publish and use a Language Understanding app	After creating a Language Understanding app, you can publish it and consume it from client applications.	Jul 18, 2023	1 hr 3 min

Module title	Description	Completed on	Duration
Analyze images	Analyze images	Jul 17, 2023	48 min
Introduction to Audio Classification with PyTorch	Learn how to do audio classification with PyTorch.	Jul 17, 2023	42 min
Generate images with Azure OpenAl Service	Use DALL-E in Azure OpenAI service to generate images	Jul 12, 2023	38 min
Generate code with Azure OpenAl Service	Learn how to use the Azure OpenAl Service to generate and improve code.	Jul 12, 2023	50 min
Contribute to an open-source project on GitHub	Learn how to contribute to an open-source project on GitHub.	Jun 12, 2023	27 min
Interactively debug .NET apps with the Visual Studio Code debugger	Learn how to efficiently debug your .NET app by using Visual Studio Code to fix your bugs quickly. Use the interactive debugger within Visual Studio Code to analyze and fix your C# applications.	Jun 8, 2023	43 min
Build a simple website using HTML, CSS, and JavaScript	Get started with web development using Visual Studio Code to build a website using HTML, CSS, and JavaScript, and using developer tools in the browser to check your work.	Jun 8, 2023	44 min
Introduction to .NET	Start learning about .NET. Understand what .NET is and how it works. Quickly build a small app in a web-based .NET environment.	May 31, 2023	28 min
Scale apps in Azure App Service	Scale apps in Azure App Service	May 26, 2023	21 min

Module title	Description	Completed on	Duration
Apply prompt engineering with Azure OpenAl Service	In this module, learn how prompt engineering can help to create and fine-tune prompts for natural language processing models. Prompt engineering involves designing and testing various prompts to optimize the performance of the model in generating accurate and relevant responses.	May 26, 2023	1 hr 3 min
Explore Azure App Service deployment slots	Explore Azure App Service deployment slots	May 26, 2023	21 min
Discuss practices for responsible AI at Microsoft	Discover how to translate your organization's ethical principles into actionable guidance and tools for engineering teams and how AI can improve lives worldwide	May 26, 2023	1 hr 17 min
Monitor Cognitive Services	Monitor Cognitive Services	May 26, 2023	42 min
Secure Cognitive Services	Secure Cognitive Services	May 26, 2023	42 min
Deploy cognitive services in containers	Deploy cognitive services in containers	May 25, 2023	54 min
Build natural language solutions with Azure OpenAl	Learn how to integrate language understanding and prompt completions from Azure OpenAl into your app.	May 25, 2023	57 min
Create a new .NET project and work with dependencies	Create a .NET project and learn to add packages and manage package dependencies in your project. Use the .NET Core CLI and NuGet registry to add libraries and tools to your C# applications through Visual Studio Code.	May 25, 2023	18 min
Create and consume Cognitive Services	Create and consume Cognitive Services	May 25, 2023	47 min

Module title	Description	Completed on	Duration
Get started with Azure OpenAl Service	Azure OpenAl Service enables engineers to build enterprise-grade generative Al solutions.	May 25, 2023	43 min
Identify governing practices for responsible AI	Learn guiding principles for organizations, and how to choose and operationalize a governance system to responsibly and successfully use AI in the enterprise.	May 23, 2023	35 min
Install and configure Visual Studio Code	Learn how to configure Visual Studio Code for C# and how to use this professional IDE to create and run console applications.	May 21, 2023	35 min
Get started with Dynamics 365 Guides	Microsoft Dynamics 365 Guides is the mixed reality application that displays step-by-step holographic instructions.	May 21, 2023	50 min
Configure web app settings	Learn how to create and manage application settings, install SSL/TLS certificates to secure web traffic, enable diagnostic logging, and create virtual app to directory mappings.	May 10, 2023	24 min
Explore Azure App Service	Learn about the key components of Azure App Service and how App Service can help you create, maintain, and deploy web apps more efficiently.	May 10, 2023	39 min
Getting started with Visual Studio for Windows 10 app development	Learn how to use Visual Studio in GitHub to create, debug, and deploy Windows 10 applications with themes, refactoring, and code snippets.	May 10, 2023	1 hr 5 min
Control Azure services with the CLI	Learn the steps to install the Azure CLI locally, create a website, and manage Azure resources using the CLI.	May 2, 2023	34 min
Identify technical debt	Identify technical debt	May 2, 2023	17 min

Module title	Description	Completed on	Duration
Create a cross- platform app with .NET MAUI	Learn how to use Visual Studio with .NET MAUI to create a cross-platform app	May 2, 2023	33 min
Translate speech with the speech service	Translate speech with the speech service	May 2, 2023	47 min
Configure Azure resources with tools	You will learn how to select a tooling option such as Azure portal, Azure PowerShell, Azure CLI, or Azure Cloud Shell.	Apr 26, 2023	46 min
Create your first Azure Cognitive Services text-to-speech application	In this module, you'll learn how to use Azure Cognitive Services to create a text-to-speech application.	Apr 26, 2023	49 min
Read text with the Computer Vision service	Read text with the Computer Vision service	Apr 23, 2023	24 min
Detect and analyze faces with the Face service	Detect and analyze faces with the Face service	Apr 23, 2023	24 min
Detect objects in images with the Custom Vision service	Detect objects in images with the Custom Vision service	Apr 18, 2023	42 min
Analyze images with the Computer Vision service	Analyze images with the Computer Vision service	Apr 18, 2023	28 min
Introduction to TensorFlow using Keras	Learn how to build a machine learning model using Keras	Apr 8, 2023	46 min

Module title	Description	Completed on	Duration
Analyze receipts with the Form Recognizer service	Analyze receipts with the Form Recognizer service	Apr 8, 2023	24 min
Classify images with the Custom Vision service	Classify images with the Custom Vision service	Apr 8, 2023	37 min
Describe analytics capabilities in Microsoft 365	Learn about the pricing model for Microsoft cloud services and how Microsoft 365 is available through a variety of licensing and billing options to meet the needs of people and organizations. Prepare for MS-900.	Apr 8, 2023	24 min
Describe endpoint modernization, management concepts, and deployment options in Microsoft 365	Learn about how the business management solutions through Microsoft 365 provide people with a secure, personalized desktop experience and help organizations easily manage updates for all devices with a simplified admin experience. Prepare for MS-900.	Apr 8, 2023	35 min
Identify guiding principles for responsible AI	Explore six principles to guide AI development and use - fairness, reliability and safety, privacy and security, inclusiveness, transparency, and accountability	Apr 6, 2023	56 min
Create a Regression Model with Azure Machine Learning designer	Create a Regression Model with Azure Machine Learning designer	Apr 5, 2023	1 hr 20 min
Create a classification model with Azure Machine Learning designer	Create a classification model with Azure Machine Learning designer	Apr 5, 2023	1 hr 27 min

Module title	Description	Completed on	Duration
Create a clustering model with Azure Machine Learning designer	Create a clustering model with Azure Machine Learning designer	Apr 5, 2023	1 hr 17 min
Describe collaboration solutions in Microsoft 365	Learn about how the collaboration solutions through Microsoft 365 unlock new ways of working together by helping people and teams stay connected, engaged, and ensure fluid communication across organizations. Prepare for MS-900.	Apr 5, 2023	36 min
Describe information protection and governance capabilities of Microsoft 365	Describe information protection and governance capabilities of Microsoft 365	Mar 15, 2023	35 min
Describe the compliance management capabilities in Microsoft 365	Describe the compliance management capabilities in Microsoft 365	Mar 15, 2023	25 min
Describe the compliance management capabilities in Microsoft	Describe the compliance management capabilities in Microsoft	Mar 15, 2023	18 min
Describe insider risk capabilities in Microsoft 365	Describe insider risk capabilities in Microsoft 365	Mar 15, 2023	21 min
Describe the eDiscovery and audit capabilities of Microsoft 365	Describe the eDiscovery and audit capabilities of Microsoft 365	Mar 15, 2023	11 min

Module title	Description	Completed on	Duration
Describe security capabilities of Microsoft Sentinel	Describe security capabilities of Microsoft Sentinel	Mar 15, 2023	18 min
Create Azure resources by using Azure CLI	Create Azure resources by using Azure CLI	Mar 15, 2023	14 min
Describe threat protection with Microsoft 365 Defender	Describe threat protection with Microsoft 365 Defender	Mar 13, 2023	42 min
Describe security management capabilities of Azure	Describe security management capabilities of Azure	Mar 13, 2023	22 min
Use Automated Machine Learning in Azure Machine Learning	Use Automated Machine Learning in Azure Machine Learning	Mar 9, 2023	1 hr 14 min
Introduction to Azure Cognitive Search	Explore Azure Cognitive Search to discover how to create an index, import data, and query the index for better search results.	Mar 9, 2023	1 hr 5 min
Maintain a secure repository by using GitHub best practices	Learn best practices for building, hosting, and maintaining a secure repository on GitHub.	Mar 8, 2023	35 min
Describe basic security capabilities in Azure	Describe basic security capabilities in Azure	Mar 7, 2023	29 min
Introduction to Azure OpenAl Service	With Azure OpenAl, you can build solutions against OpenAl artificial intelligence models within Azure.	Mar 7, 2023	38 min

Module title	Description	Completed on	Duration
Describe the authentication capabilities of Azure AD	Describe the authentication capabilities of Azure AD	Mar 7, 2023	27 min
Explore fundamentals of stream processing	Learn about the basics of stream processing, and the services in Microsoft Azure that you can use to implement streaming data solutions.	Mar 3, 2023	1 hr 23 min
Create speech- enabled apps with the Speech service	Create speech-enabled apps with the Speech service	Feb 26, 2023	58 min
Explore fundamentals of data visualization	Learn the fundamental principles of analytical data modeling and data visualization, using Microsoft Power BI as a platform to explore these principles in action.	Feb 24, 2023	38 min
Examine components of a modern data warehouse	Examine components of a modern data warehouse	Feb 24, 2023	51 min
Host a web application with Azure App Service	Create a website using C#, Java, Python or Node.js and deploy it through the hosted web app platform in Azure App Service.	Feb 20, 2023	31 min
Introduction to Anomaly Detector	Discover the Anomaly Detector service that is part of the Azure Decision services offerings.	Feb 20, 2023	38 min
Test your app like a professional	Learn how to test your app from Power Apps like a professional.	Feb 20, 2023	23 min
Manage non- relational data stores in Azure	Manage non-relational data stores in Azure	Feb 20, 2023	31 min

Module title	Description	Completed on	Duration
Explore provisioning and deploying non-relational data services in Azure	Explore provisioning and deploying non- relational data services in Azure	Feb 20, 2023	38 min
Describe the identity protection and governance capabilities of Azure AD	Describe the identity protection and governance capabilities of Azure AD	Feb 19, 2023	27 min
Describe the access management capabilities of Azure AD	Describe the access management capabilities of Azure AD	Feb 19, 2023	20 min
Describe support offerings for Microsoft 365 services	Describe support offerings for Microsoft 365 services	Feb 19, 2023	24 min
Describe the services and identity types of Azure AD	Describe the services and identity types of Azure AD	Feb 18, 2023	26 min
Explore provisioning and deploying relational database services in Azure	Explore provisioning and deploying relational database services in Azure	Feb 18, 2023	36 min
Explore relational data services in Azure	Explore relational data services in Azure	Feb 17, 2023	37 min
Identify licensing options available in Microsoft 365	Identify licensing options available in Microsoft 365	Feb 16, 2023	20 min

Module title	Description	Completed on	Duration
Create a chatbot with Power Virtual Agents and Dataverse for Teams	Learn how to create your first chatbot by using Microsoft Power Virtual Agents and Microsoft Dataverse for Teams.	Feb 15, 2023	24 min
Describe productivity solutions in Microsoft 365	Learn about how the productivity solutions through Microsoft 365 help optimize operations, engage customers, and empower people to perform tasks in real-time from virtually anywhere. Prepare for MS-900.	Feb 14, 2023	33 min
What is Microsoft 365?	What is Microsoft 365?	Feb 14, 2023	30 min
Choose the best tools to help organizations build better solutions	Learn about Microsoft tools and services that help developers and operations engineers build modern solutions for the cloud and on-premises.  Prepare for AZ-900.	Feb 13, 2023	21 min
Describe high availability and disaster recovery strategies	Describe high availability and disaster recovery strategies	Feb 13, 2023	59 min
Deploy Azure infrastructure by using JSON ARM templates	Write JSON Azure Resource Manager templates by using Visual Studio Code to deploy your infrastructure to Azure consistently and reliably.	Feb 13, 2023	43 min
Introduction to DevOps principles for machine learning	Introduction to DevOps principles for machine learning	Feb 13, 2023	33 min
Get started with AI on Azure	Get started with AI on Azure	Feb 13, 2023	34 min

Module title	Description	Completed on	Duration
Build a bot with the Language Service and Azure Bot Service	Build a bot with the Language Service and Azure Bot Service	Feb 6, 2023	29 min
Analyze text with the Language service	Analyze text with the Language service	Jan 29, 2023	36 min
Recognize and synthesize speech	Recognize and synthesize speech	Jan 29, 2023	29 min
Explore data in Power BI	Turn your business intelligence data into data insights by creating and configuring Power BI dashboards.	Jan 18, 2023	53 min
Use visuals in Power Bl	Create and customize visuals to present data in compelling and insightful ways.	Jan 18, 2023	1 hr 16 min
Model data in Power Bl	Connect Power BI to multiple data sources to create reports. Define the relationship between your data sources.	Jan 18, 2023	1 hr 7 min
Create a language model with Conversational Language Understanding	Create a language model with Conversational Language Understanding	Jan 18, 2023	39 min
Translate text and speech	Translate text and speech	Jan 18, 2023	29 min
Structure your Git Repo	Structure your Git Repo	Jan 18, 2023	11 min
Describe features and tools for managing and deploying Azure resources	Describe features and tools for managing and deploying Azure resources	Jan 18, 2023	20 min

Module title	Description	Completed on	Duration
Describe features and tools in Azure for governance and compliance	Describe features and tools in Azure for governance and compliance	Jan 18, 2023	34 min
Describe monitoring tools in Azure	Describe monitoring tools in Azure	Jan 17, 2023	13 min
Explore core data concepts	Explore core data concepts	Jan 17, 2023	30 min
Use Azure Resource Manager	You will learn to use resource groups to organization your organization's Azure resources.	Jan 17, 2023	30 min
Describe resource governance capabilities in Azure	Describe resource governance capabilities in Azure	Jan 17, 2023	11 min
Describe cost management in Azure	Describe cost management in Azure	Jan 10, 2023	43 min
Introduction to Natural Language Processing with PyTorch	Learn how to handle language and solve natural language processing tasks with PyTorch	Dec 21, 2022	55 min
Describe Azure identity, access, and security	<module title=""></module>	Dec 19, 2022	43 min
Introduction to Computer Vision with PyTorch	Learn how to perform different computer vision tasks using PyTorch.	Dec 16, 2022	53 min
Describe Azure storage services	Azure storage services, tiers, redundancy options, and migration options and tools.	Dec 16, 2022	44 min

Module title	Description	Completed on	Duration
Build a containerized web application with Docker	Use Docker to build, store, and manage private container images with the Azure Container Registry.	Dec 15, 2022	57 min
Describe Azure compute and networking services	Introduction to Azure compute services (virtual machines, Azure Virtual Desktop, Azure Functions) and networking services (virtual networks, ExpressRoute, DNS, etc.).	Dec 12, 2022	1 hr 8 min
Describe the core architectural components of Azure	Concepts around physical and management architecture for Azure, including data centers and regions, management groups and subscriptions, etc.	Dec 12, 2022	48 min
Introduction to Speech-to-text	Speech-to-text enables the real-time transcription of audio streams into text in more than 90 languages and dialects. Speech-to-text service can be tailored to your voice or vocabulary to build custom recognition models, further enhancing accuracy.	Dec 2, 2022	21 min
Implement interfaces in TypeScript	Learn how to use interfaces to define object types.	Nov 26, 2022	46 min
Request multiple user inputs using custom forms	Learn how to design custom forms to request multiple types of data in a single dialog.	Nov 24, 2022	37 min
Create a new Node.js project and work with dependencies	Create a Node.js project and learn to add packages and manage package dependencies in your project. Use the npm CLI and registry to add libraries and tools to your JavaScript/TypeScript web development projects using Visual Studio Code.	Nov 13, 2022	40 min
Develop typed functions by using TypeScript	Learn how to develop typed functions by using TypeScript.	Nov 12, 2022	51 min

Module title	Description	Completed on	Duration
Declare variable types in TypeScript	Learn about the available types and how to associate them with variables.	Nov 9, 2022	38 min
Describe authentication and authorization in cybersecurity	Describe authentication and authorization in cybersecurity	Oct 28, 2022	18 min
Describe concepts of cryptography	Describe concepts of cryptography	Oct 28, 2022	24 min
Get started with TypeScript	This module introduces you to the TypeScript language and shows you how to set up a TypeScript development environment.	Oct 20, 2022	36 min
Make your app like a professional	Learn how to make your app from Power Apps like a professional.	Oct 13, 2022	39 min
Design your app like a pro	Learn how to design an app based on an identified problem.	Oct 13, 2022	27 min
Plan your project like a pro	Learn how to plan your app project effectively.	Oct 13, 2022	28 min
Secure network connectivity on Azure	Learn about the Azure services you can use to help ensure that your network is safe, secure, and trusted. Prepare for AZ-900.	Oct 10, 2022	34 min
Navigate the Dynamics 365 customer engagement apps	Navigate the Dynamics 365 customer engagement apps	Oct 10, 2022	32 min
Introduction to Power Virtual Agents	Introduction to Power Virtual Agents	Sep 23, 2022	22 min

Module title	Description	Completed on	Duration
Create formulas to change properties in a Power Apps canvas app	Want to enhance or customize your Power Apps canvas app? You can use easy-to-write formulas to make changes in your app that include changing the format or position of controls, do simple math calculations, or implement conditional formatting in your design.	Sep 21, 2022	42 min
Get data with Power BI Desktop	How can you find, collect, and clean data from different sources? Power BI is a tool for making sense of your data. You will learn tricks to make data-gathering easier.	Sep 15, 2022	1 hr 15 min
Create a Power Automate button without user input	Do you want to create a Power Automate button flow? This module will focus on Power Automate buttons that don't require user input and run a predefined series of actions.	Sep 12, 2022	45 min
Introduction to GitHub in Visual Studio Code	Learn to use the GitHub integration in Visual Studio Code, including authentication, publishing repos, and viewing your repo timeline.	Sep 12, 2022	22 min
How to build a simple dashboard	How to build a simple dashboard	Sep 12, 2022	41 min
Confusion matrix and data imbalances	How do we know if a model is good or bad at classifying our data? The way that computers assess model performance sometimes can be difficult for us to comprehend or can oversimplify how the model will behave in the real world. To build models that work in a satisfactory way, we need to find intuitive ways to assess them, and understand how these metrics can bias our view.	Sep 11, 2022	52 min
Train and evaluate deep learning models	Train and evaluate deep learning models	Sep 8, 2022	2 hr 14 min

Module title	Description	Completed on	Duration
Introduction to using Power Automate buttons	Do you want to learn about how to use buttons in Power Automate? This module focuses on introducing the basics of flow buttons, the different types of buttons, using trigger tokens, sharing buttons with other users, and using buttons in the Power Automate mobile app.	Aug 29, 2022	49 min
Introduction to Power BI	Introduction to Power BI	Aug 28, 2022	46 min
Describe identity concepts	Describe identity concepts	Aug 28, 2022	20 min
Shape data in a Power Apps canvas app	When you create a canvas app, do you need to show the user all the data? What if you want to show only the data that is relevant to them? This module will help you address this issue.	Aug 28, 2022	58 min
How to build an automated solution	How to build an automated solution	Aug 28, 2022	58 min
Introduction to Power Automate	Introduction to Power Automate	Aug 28, 2022	30 min
How to build a model-driven app	How to build a model-driven app	Aug 27, 2022	1 hr 17 min
Introduction to Power Apps	Introduction to Power Apps	Aug 27, 2022	28 min
Customize a canvas app in Power Apps	Learn how to customize an app by adding controls, images, and logic.	Aug 27, 2022	41 min
Work with external data in a Power Apps canvas app	Do you need to connect an app to access data? Then this module is for you. It focuses on connecting your app to a data source.	Aug 27, 2022	1 hr 4 min

Module title	Description	Completed on	Duration
How to build a canvas app	How to build a canvas app	Aug 26, 2022	56 min
Get started with Power Apps canvas apps	Learn the basics of Power Apps and how you can use it in your organization.	Aug 26, 2022	51 min
Introduction to GitHub administration	Understand the security and control measures available to GitHub administrators within an organization or enterprise.	Aug 17, 2022	21 min
Protect against security threats on Azure	Learn how Azure can help you protect the workloads that you run both in the cloud and in your on-premises datacenter. Prepare for AZ-900.	Aug 17, 2022	25 min
Get started with Power Automate	Learn how to create simple flows to make your life easier.	Aug 17, 2022	51 min
Describe cloud service types	Introduction to cloud service types (Infrastructure, Platform, and Software as a Service models) and associated use cases for each.	Aug 11, 2022	12 min
Get started with the Windows Subsystem for Linux	Learn how to enable WSL, install your favorite Linux distribution, set up an integrated dev environment with Visual Studio Code, and more.	Aug 11, 2022	1 hr 42 min
Measure and optimize model performance with ROC and AUC	Receiver operator characteristic curves are a powerful way to assess and fine-tune trained classification models. We introduce and explain the utility of these curves through learning content and practical exercises.	Aug 11, 2022	36 min
Implement transactions with Transact-SQL	Implement transactions with Transact-SQL	Aug 1, 2022	55 min

Module title	Description	Completed on	Duration
Select and customize architectures and hyperparameters using random forest	Explore how altering the architecture of more complex models can bring about more effective results.	Jul 26, 2022	52 min
Create and understand classification models in machine learning	Classification means assigning items into categories, or can also be thought of automated decision making. Here we introduce classification models through logistic regression, providing you with a stepping-stone toward more complex and exciting classification methods.	Jul 26, 2022	52 min
Train and evaluate clustering models	Clustering is a kind of machine learning that is used to group similar items into clusters.	Jul 26, 2022	38 min
Explore Azure Storage services	Learn about the different storage options that are available in Azure Storage. Prepare for AZ-900.	Jul 26, 2022	27 min
Describe the benefits of using cloud services	Introduction to concepts surrounding cloud computing. Mostly platform agnostic, focused instead on general concepts.	Jul 22, 2022	17 min
Describe cloud computing	Introduction to concepts surrounding cloud computing. Mostly platform agnostic, focused instead on general concepts.	Jul 22, 2022	23 min
Fundamentals of computer networking	You'll learn the fundamental principles of computer networking to prepare you for the Azure admin and developer learning paths.	Jul 22, 2022	47 min
Introduction to GitHub's Products	Overview GitHub's products, associated features, and licensing of per-use and metered features.	Jul 21, 2022	19 min
Train and evaluate classification models	Train and evaluate classification models	Jul 21, 2022	47 min

Module title	Description	Completed on	Duration
Refine and test machine learning models	When we think of machine learning, we often focus on the training process. A small amount of preparation before this process can not only speed up and improve learning but also give us some confidence about how well our models will work when faced with data we have never seen before.	Jul 21, 2022	52 min
Create an Azure Storage account	Discover ways to use an Azure Storage account to manage your data for billing, access, and storage location of your blobs, files, queues, and tables.	Jul 21, 2022	30 min
Explore Azure networking services	Learn about the core networking resources that are available in Azure, such as Azure Virtual Network, Azure VPN Gateway, and Azure ExpressRoute. Prepare for AZ-900.	Jul 21, 2022	38 min
Train and understand regression models in machine learning	Regression is arguably the most widely used machine learning technique, commonly underlying scientific discoveries, business planning, and stock market analytics. This learning material takes a dive into some common regression analyses, both simple and more complex, and provides some insight on how to assess model performance.	Jul 17, 2022	52 min
Introduction to data for machine learning	The power of machine learning models comes from the data that is used to train them.  Through content and exercises, we explore how to understand your data, how to encode it so that the computer can interpret it properly, how to clean it of errors, and tips that will help you create models that perform well.	Jul 17, 2022	45 min
Create a web app that uses data to make decisions on the basketball court	Create a web app by using JavaScript, Azure, GitHub, and Visual Studio Code to help the Tune Squad coach use data to make decisions on the basketball court, inspired by SPACE JAM: A NEW LEGACY.	Jul 14, 2022	1 hr 5 min

Module title	Description	Completed on	Duration
Build classical machine learning models with supervised learning	Supervised learning is a form of machine learning where an algorithm learns from examples of data. We progressively paint a picture of how supervised learning automatically generates a model that can make predictions about the real world. We also touch on how these models are tested, and difficulties that can arise in training them.	Jul 13, 2022	52 min
Introduction to machine learning	A high-level overview of machine learning for people with little or no knowledge of computer science and statistics. You'll be introduced to some essential concepts, explore data, and interactively go through the machine learning life-cycle - using Python to train, save, and use a machine learning model like we would in the real world.	Jul 13, 2022	52 min
Explore Azure compute services	Learn about the different services that are available in Azure compute Prepare for AZ-900.	Jul 5, 2022	52 min
Introduction to building apps for Microsoft Teams	An introduction to creating custom apps for Microsoft Teams built on the Microsoft Teams Platform.	Jun 24, 2022	39 min
Build a machine learning model	In this module you focus on a local analysis of your data by using scikit-learn, and use a decision tree classifier to gain knowledge from raw weather and rocket launch data.	Jun 24, 2022	35 min
Introduction to rocket launches	Get an introduction to how NASA chooses dates for a rocket launch and discover machine learning fundamentals.	Jun 24, 2022	40 min
Data collection and manipulation	Learn about the steps to import data into Python and clean the data for use in creating machine learning models.	Jun 23, 2022	33 min

Module title	Description	Completed on	Duration
Train and evaluate regression models	Regression is a commonly used kind of machine learning for predicting numeric values.	Jun 23, 2022	52 min
What is your super sleuth personality?	What is your super sleuth personality? Use Python to build a quiz to share with your friends by using Boolean commands and conditionals.	Jun 23, 2022	50 min
Crack the code and reveal a secret with Python and Visual Studio Code	You're handed a secret message that needs a code cracker to find the truth. Learn how to solve the code mystery to reveal a location and date to find a hidden treasure. Get a glimpse into the popular Python programming language with this introductory lesson that requires no coding experience.	Jun 23, 2022	38 min
Get started with testing in Python	Use Python's standard library module to write unit tests, and then get exposed to the concepts of other types of testing and how to apply them.	Jun 21, 2022	21 min
Build an Al web app by using Python and Flask	Use Python, Flask, and Azure Cognitive Services to build a web app that incorporates AI	Jun 21, 2022	1 hr 15 min
Describe security and compliance concepts and methodologies	Describe security and compliance concepts and methodologies	Jun 21, 2022	25 min
Introduction to object-oriented programming with Python	This module will teach you how to model problems by using object-oriented programming (OOP) concepts.	Jun 21, 2022	46 min
Introduction to Python	Learn about the Python programming language, how to execute statements and scripts, declare variables, and create a basic Python app.	Jun 21, 2022	16 min

Module title	Description	Completed on	Duration
Predict basketball player efficiency ratings by using machine learning and Visual Studio Code	Use data from basketball players in the film *Space Jam: A New Legacy* to create a machine learning model to cleanse data and explore bimodal data distributions.	Jun 21, 2022	1 hr 1 min
Write your first C# code	Get started by writing tiny code examples to learn the basics of the C# syntax!	Jun 8, 2022	17 min
Explore Azure database and analytics services	Learn about the database services that are available on Microsoft Azure, such as Azure Cosmos DB, Azure SQL Database, Azure SQL Managed Instance, Azure Database for MySQL, Azure Database for PostgreSQL, as well as big data and analytics. (AZ-900)	May 24, 2022	43 min
Code control statements in Python	Learn more advanced topics of Python.	May 11, 2022	41 min
Modify data with T- SQL	Modify data with T-SQL	May 9, 2022	56 min
Introduction to Transact-SQL	Introduction to Transact-SQL	May 8, 2022	56 min
Introduction to PyTorch	Learn how to build machine learning models with PyTorch	May 8, 2022	56 min
The Principles of Sustainable Software Engineering	Sustainable Software Engineering is an emerging discipline at the intersection of climate science, software, hardware, electricity markets, and data center design. The Principles of Sustainable Software Engineering are a core set of competencies needed to define, build, and run sustainable software applications.	May 3, 2022	33 min
Introduction to Dataverse	Introduction to Dataverse	Apr 22, 2022	37 min

Module title	Description	Completed on	Duration
Write basic Python in Notebooks	Learn the basics of Python.	Apr 5, 2022	37 min
Search and organize repository history by using GitHub	Learn to search and organize repository history by using filters, blame, and cross-linking on GitHub.	Apr 4, 2022	38 min
Automate DevOps processes by using GitHub Apps	Learn to automate DevOps processes by using GitHub Apps that handle repetitive tasks, enforce team policies, and maintain a tidy repository.	Apr 4, 2022	43 min
Settle competing commits by using merge conflict resolution on GitHub	Learn to settle overlapping commits across branches by using merge conflict resolution.	Apr 4, 2022	52 min
Manage repository changes by using pull requests on GitHub	Learn how to manage changes to your repository source by using pull requests.	Apr 3, 2022	49 min
Discover data analysis	Would you like to explore the journey of a data analyst and learn how a data analyst tells a story with data? In this module, you will explore the different roles in data and learn the different tasks of a data analyst.	Apr 3, 2022	36 min
Python error handling	Use effective techniques for error handling in Python. Catching exceptions, raising new ones, and updating error messages are essential for robust Python projects.	Apr 1, 2022	8 min
Python functions	Functions are a foundational knowledge for writing modular code. Understanding inputs and outputs in functions will help you write better software that's reusable and readable.	Apr 1, 2022	9 min

Module title	Description	Completed on	Duration
Manage data with Python dictionaries	Most programs need to work with data more complex than strings or numbers. Python dictionaries allow you to create data types to model more complex information and relationships. This module explores how to create and utilize dictionaries in Python.	Apr 1, 2022	7 min
Use 'while' and 'for' loops in Python	With Python, you can use `while` loops to run the same task multiple times and `for` loops to loop once over list data. In this module, you'll learn about the two loop types and when to apply each.	Apr 1, 2022	7 min
Introduction to lists in Python	As a developer, you'll work with a lot of lists. A list is a series of values that contain variables of any type. You use lists in Python to store information. They're dynamic, so you can freely add items to them and remove items from them.	Apr 1, 2022	8 min
Use mathematical operations in Python	Almost every application a developer creates involves some level of math. This module will explore the core functionality in Python and arithmetic operators.	Apr 1, 2022	27 min
Use strings in Python	Strings and string operations are among the main core types in Python. Manipulating text is an essential developer skill, and Python offers several ways to work with strings.	Apr 1, 2022	24 min
Leverage GitHub Actions to publish to GitHub Packages	Publish automatically and secure your code libraries or Docker images with GitHub Packages.	Apr 1, 2022	41 min
Install coding tools for Python development	Learn about what coding is and install tools to help you code.	Apr 1, 2022	40 min
Introduction to Python for space exploration	Get an introduction to the types of space exploration problems that Python and data science can influence.	Apr 1, 2022	23 min

Module title	Description	Completed on	Duration
Explore and analyze data with Python	Data exploration and analysis is at the core of data science. Data scientists require skills in languages like Python to explore, visualize, and manipulate data.	Apr 1, 2022	47 min
Use Boolean logic in Python	Explore how to use the Boolean type in Python to craft complex expressions that apply conditional logic.	Mar 31, 2022	32 min
Automate GitHub by using GitHub Script	Learn to interact with the GitHub API from GitHub Actions by using GitHub Script.	Mar 31, 2022	25 min
Build and deploy applications to Azure by using GitHub Actions	Create two deployment workflows using GitHub Actions and Microsoft Azure.	Mar 31, 2022	59 min
Build continuous integration (CI) workflows by using GitHub Actions	Learn how to create workflows that enable you to use Continuous Integration (CI) for your projects.	Mar 31, 2022	1 hr 7 min
Create and manage projects in Python	Learn how to use virtual environments and packages as you create and manage projects in Python.	Mar 31, 2022	21 min
Write your first Python programs	Learn how to write your first Python programs, and to print and gather input on the console.	Mar 31, 2022	30 min
Develop web applications with Visual Studio Code	Learn how to develop apps with Visual Studio Code, and use its features to create and test a very simple web application.	Mar 31, 2022	45 min

Module title	Description	Completed on	Duration
Get started building with Power BI	Power BI is a collection of software services and applications that let you connect to all sorts of data sources and create compelling visuals and reports. You can benefit from receiving those reports, or you can share them with others inside or outside your organization. Learn the basics of Power BI, how its services and applications work together, and how they can be used to create or experience compelling visuals and analytics based on your data.	Mar 30, 2022	40 min
Introduction to Microsoft Power Platform	Introduction to Microsoft Power Platform	Mar 28, 2022	33 min
Manage Git repositories	Manage Git repositories	Mar 28, 2022	11 min
Edit code through branching and merging in Git	Level up your Git knowledge by learning how to keep code separate in branches, and how to merge them later.	Mar 27, 2022	55 min
Collaborate with Git	Use Git to track changes to source code and collaborate with other developers.	Mar 27, 2022	44 min
How to create and modify a Git project	Learn how to us Git to create and modify a new project in Git	Mar 27, 2022	31 min
Describe core Azure architectural components	Learn about Azure subscriptions, management groups, resource groups, Azure Resource Manager, Azure regions, and availability zones. Prepare for AZ-900.	Mar 26, 2022	27 min
Create and host web sites by using GitHub Pages	Learn how to host your personal, organization, and project sites for free with GitHub Pages.	Mar 26, 2022	1 hr 12 min

Module title	Description	Completed on	Duration
Communicate effectively on GitHub by using Markdown	Learn to use Markdown to communicate with brevity, clarity, and expression.	Mar 26, 2022	1 hr 2 min
Explore roles and responsibilities in the world of data	Explore roles and responsibilities in the world of data	Mar 26, 2022	15 min
Automate development tasks by using GitHub Actions	Create a basic GitHub Action and use that action in a workflow.	Mar 25, 2022	49 min
Manage software delivery by using a release based workflow on GitHub	Learn to implement a release based workflow on GitHub using project boards, branches, and releases.	Mar 25, 2022	1 hr 44 min
Introduction to Git	Use Git to track changes and collaborate with other developers.	Mar 25, 2022	31 min
Get started with Jupyter notebooks for Python	Get started using Jupyter notebooks for Python programming.	Mar 25, 2022	21 min
Get started with Git and GitHub in Visual Studio	In this module, we'll authenticate to GitHub, create a local Git repository, and push the repository to GitHub by using the Git tooling experience in Visual Studio 2019. We'll add and modify files, stage and commit changes, and then finally push to your remote.	Feb 10, 2022	38 min
Introduction to Visual Studio	Evaluate what Visual Studio can add to your development experience with tools like the advanced editor, debugger, code-sharing, and publishing tools	Feb 10, 2022	19 min

Module title	Description	Completed on	Duration
Introduction to GitHub	Learn to use key GitHub features, including issues, notifications, branches, commits, and pull requests.	Feb 10, 2022	1 hr 12 min
Perform mathematical operations on numeric data in Python	Convert user input to numeric values, and use mathematical operators to perform calculations.	Dec 30, 2021	37 min
Manipulate and format string data for display in Python	Use built-in features of the string class and other helper methods to control string data.	Dec 26, 2021	31 min
Discuss Azure fundamental concepts	Learn about the different types and categories of cloud computing. Prepare for AZ-900.	Dec 26, 2021	24 min
Branch code execution with the if and else statements in Python	Use the if statement Boolean expressions with comparison and logic operators to express decision logic.	Dec 25, 2021	27 min
Introduction to Azure fundamentals	This module introduces you to the basics of Azure. Prepare for AZ-900.	Dec 22, 2021	43 min
Create your first Python program	Get started with Python by writing code to interact with end users.	Dec 22, 2021	32 min
Set up your Python beginner development environment with Visual Studio Code	Get started with learning Python by installing and configuring the tools you'll need to build real applications.	Dec 22, 2021	28 min
What is Python?	A quick introduction to Python, programming languages, compilation, and the process of programming.	Dec 22, 2021	15 min

Module title	Description	Completed on	Duration
JavaScript arrays and loops	JavaScript is a programming language used for web development as well as the server. Learn how to manipulate and store data within JavaScript.	Dec 20, 2021	18 min
Make decisions with JavaScript	JavaScript is a programming language used for web development as well as the server. Learn the syntax for controlling data flow in JavaScript and its significance when used with Boolean data types.	Dec 20, 2021	14 min
Create modular code by using functions in JavaScript	Functions are the building blocks for any application you'll create. With functions, you can create named, reusable sections of code to help make it more readable and maintainable. This module explores the core concepts of functions when used for web development to make HTML interactive.	Dec 20, 2021	25 min
JavaScript variables and data types	JavaScript is a programming language used for web development as well as the server. Learn about variables and the data types that populate them.	Dec 20, 2021	17 min
Learn the basics of web accessibility	This module covers various concepts on the topic of accessibility and how to add it to your web applications during web development. You will learn the importance of using HTML tags properly to describe information, and various improvements you can make to your sites.	Dec 16, 2021	15 min
Introduction to programming	Learn about programming languages and the tools that developers use to create software for web development.	Dec 16, 2021	20 min