

AI & Generative AI Bootcamp

Course Duration: 15 days

No. of Hours: 08 hours/day

Note: Exploring labs/exercises for Module 05 & Module 06 would require an OpenAI /Azure OpenAI subscription from the students. The subscription can be bought from here: <https://platform.openai.com/account/billing/overview>

Module 1: Python – 3 Day

- Introduction
 - Data Types
 - Variables
 - Decision Control Files
 - Operators
 - List, Tuples, Sets, Dictionary
 - Functions and Methods
 - File Handling
 - Module
 - String
 - Iterators and Generators
 - Regular Expressions
 - OO Programming Concepts
 - Numpy
 - Pandas
 - Matplotlib
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Module 2: Machine Learning Essentials – 3 Day

- Machine Learning (ML) Lifecycle
 - Statistics & Mathematics
 - Feature Selection Technique
 - Linear regression
 - Logistic Regression
 - Classification - Decision Trees & Random Forests
 - Classification - Naive Bayes
 - Clustering (K-Means)
 - Classification - SVM (Support Vector Machines)
 - Principal Component Analysis (PCA)
 - Recommendation (Content based filtering & Collaborative filtering)
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Module 3: AI-900 Microsoft Azure AI Fundamentals – 2 Day

- Cloud Concepts
- Describe Artificial Intelligence workloads and considerations
- Describe fundamental principles of machine learning on Azure

- Describe features of computer vision workloads on Azure
 - Describe features of Natural Language Processing (NLP) workloads on Azure
 - Describe features of generative AI workloads on Azure
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Module 4: AI-102 Designing and Implementing a Microsoft Azure AI Solution – 4 Day

- Plan and manage an Azure AI solution
 - Implement decision support solutions
 - Implement computer vision solutions
 - Implement natural language processing solutions
 - Implement knowledge mining and document intelligence solutions
 - Implement generative AI solutions
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Module 5: ChatGPT for End Users – 1 Day

- Understand ChatGPT capabilities in various tasks
 - Learn text prompting techniques for enhanced results
 - Apply effective prompting techniques for different tasks
 - Explore different OpenAI applications
 - Learn image prompting techniques for enhanced results
 - Understand prompt reliability and privacy concerns
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Module 6: Azure OpenAI training for Developers– 2 Day

- Introduction to Azure OpenAI
- Azure OpenAI libraries and models
- Text Completion Model
- Code Completion Model
- Image Generation Model
- Fine-tuning of models