



GENERATIVE AI FOR BUSINESS WITH MICROSOFT AZURE OPEN AI PROGRAM

ABOUT THE PROGRAM

Generative AI for Business with Microsoft Azure OpenAI is a 10-week online learning journey which aims to induct you into the world of Generative AI. This program teaches you how to leverage LLMs for solving various business problems and building data-driven services through Prompt Engineering. You will learn how to do this both without and with code on the Azure Cloud Platform, the Azure OpenAI studio, APIs and by using the Python SDKs.

This program, **in collaboration with the Microsoft Azure OpenAI**, is built around the fundamental learning principle of 'learning by doing'. It helps professionals build practical skills with hands-on case studies and a portfolio of projects, enabling them to transition into lucrative and fast-growing domains like Data and AI.

PROGRAM HIGHLIGHTS



10-week online program



6+ hands-on case studies,
2 hands-on projects



Prompt engineering with
and without code



Text Classification, Text Summarization,
and Text Generation using Generative AI



Microsoft Azure Lab access with
OpenAI Studio



Certificate of Completion by
Great Learning and Microsoft



Learning support
(dedicated program manager and academic support)



LEARNING OUTCOMES

- Have a solid understanding of **Generative AI** - history, now, and future and how to use it to solve problems & build services
- How to use **Microsoft Azure Open AI** platform to leverage Generative AI
- How to use **APIs and Python SDKs** to scale Prompt Engineering
- How to use **Prompt Engineering** effectively for business use-cases
- Get working knowledge of how to use Generative AI for key business applications - **natural language classification, summarization, and generation**
- How **Large Language Models (LLMs)** can be tuned to get desired outputs
- How to think about enterprise-level **Generative AI solutions**
- Write basic snippets of codes that call **LLM APIs** and deliver Prompt Engineering at scale



CURRICULUM

This two-module curriculum covers Microsoft Azure OpenAI and Generative AI.

- Module 1 explores AI, ML, LLMs, and Prompt Engineering, along with Microsoft Azure's OpenAI services.
- Module 2 focuses on using Microsoft Azure OpenAI API key and Python SDK for hands-on learning in text classification and summarization.

By the end of the program, you'll master applying Generative AI for various tasks without coding.

MODULE - 1

LEVERAGING GENERATIVE AI FOR BUSINESS APPLICATIONS

This module centres on three core pillars: Generative AI understanding, Microsoft Azure OpenAI services exploration, and mastery of Prompt Engineering. Learn foundational AI, ML, DL, and Large Language Models with real-world applications. Gain hands-on experience with cutting-edge generative tools and explore Azure OpenAI services' capabilities. Lastly, master Prompt Engineering to design effective prompts without coding.

WEEK - 1

GENERATIVE AI: BUSINESS LANDSCAPE & OVERVIEW

This week you'll understand the Generative AI landscape, fundamentals and possibilities for businesses to solve problems and create products. Here's an overview of what will be covered this week:

- Defining AI, ML, DL, LLM and Generative Models
- Learning Supervised and Unsupervised ML Tasks
- Understanding Generative and Discriminative AI
- A brief timeline of Generative AI
- A Peek into Generative Models
- Deconstructing the Behavior of Large Language Models
- ML, DL and Generative AI Applications in Business
- Hands-on Demonstration of Popular Tools (ChatGPT, DALL-E, BLIP)

WEEK - 2

AI SERVICES ON MICROSOFT AZURE

This week, you'll understand the Cognitive Services & the OpenAI service available on Microsoft Azure and learn how to use them. Here's an overview of what will be covered this week:

- Navigating the Azure Portal and Services
- Navigating the Azure Cognitive Services
- Applying for and Accessing the Azure Open AI Service
- Creating an Azure Open AI Service Resource
- Getting Setup with the Azure Open AI Studio
- Understanding the Azure Open AI Model Portfolio and Pricing
- Walkthrough of key Azure Open AI Services and an Approach to Build Workflows

WEEK - 3

PROMPT ENGINEERING W/O CODE

This week you'll gain practical knowledge of Prompt Engineering and the ability to do it without code for various business use cases. Here's an overview of what will be covered this week:

- LLMs and the Genesis of Prompting
- How does the Attention Mechanism Work?
- A Brief History of the GPT Model Series
- Accessing GPT through Microsoft Azure
- Designing Prompts for Business Use Cases using Playground Templates
- Prompting Techniques (Prompt Templates, Precise Instructions, Chain of Thought Prompting)
- Ideating for Prompts (Prompt Generation by Induction, Prompt Paraphrasing)

WEEK - 4

PROJECT

Product Feedback Review & Sentiment Analysis

Create a prompt template that performs sentiment analysis on product reviews. The model should extract relevant information, such as product names, reviewer names, review ratings, review descriptions, and sentiment (positive or negative), to assist the company in understanding customer feedback better.

WEEK - 5

LEARNING BREAK AND PRE-WORK FOR THE NEXT MODULE

This week, you'll get up to speed on the Python concepts needed to automate Prompt Engineering at scale and understand the cost implications of using APIs. Here's an overview of what will be covered this week:

- Python Refresher (Focused on Prompt Engineering)
- APIs and how they work
- Understanding Cost - Models, Pricing, APIs, Rate Limits, etc.



MODULE - 2

DESIGNING GENERATIVE AI SOLUTIONS WITH MICROSOFT AZURE OPEN AI

In this advanced module, you'll master LLMs, automate Prompt Engineering, and scale Generative AI with Python. Set up Microsoft Azure Open AI API key, import Python library/SDK, and work with different Generative AI models. Discover Completions API, ChatCompletions API, and Embeddings API with their rates, limits, and pricing. Explore text classification and summarization with practical exercises like medical record classification and finance news theme assignments.

WEEK - 6

PROMPT ENGINEERING AT SCALE

This week, you'll learn how to use the Microsoft Azure Open AI API key and the Python SDK to leverage Generative AI at scale for solving business problems. Here's an overview of what will be covered this week:

- Getting setup with your Azure Open AI key and Python SDK
- Completions and Chat API
- Kinds of APIs, Models, Token, Rate Limits and Pricing
- Evaluating Generative AI Outputs

WEEK - 7

CLASSIFICATION TASKS WITH GENERATIVE AI

This week you'll learn how to use Prompt Engineering to solve classification-type problems. Here's an overview of what will be covered this week:

- Framing Text Classification Tasks as Generative AI Problem
- Sentiment Classification
- Assigning Themes to a Body of Text
- Aspect-based Sentiment Analysis

WEEK - 8

CONTENT GENERATION AND SUMMARIZATION WITH GENERATIVE AI

This week you'll learn how to use Generative AI for content generation tasks across various business problem spaces. Here's an overview of what will be covered this week:

- Content Generation using Generative AI
- Abstractive Summarization
- Text Generation
- Image Generation

WEEK - 9

INFORMATION RETRIEVAL AND SYNTHESIS WORKFLOW WITH GENERATIVE AI

This week you'll learn how to set up an information retrieval and synthesis workflow on Microsoft Azure or a local environment for a business use case. Here's an overview of what will be covered this week:

- Overview of Advanced Application of Generative AI
- Critical Components of Architecting Conversational Agents
- Demonstration of a Conversational Agent Implementation

WEEK - 10

FINAL PROJECT

Aspect-based Text Classification for Sentiment Analysis

Use aspect-based classification for sentiment analysis to identify the aspects of a product or service that customers are most satisfied with and those that need improvement. This enables businesses to grasp customer insights, drive data-based choices, and boost product/service quality. Improved satisfaction and loyalty lead to higher retention and revenue.

CERTIFICATE OF COMPLETION

Upon successful completion of this course, you will receive a certificate of completion from Great Learning that adds a competitive edge to your resume.



FACULTY



**Dr. Abhinanda
Sarkar**

Faculty Director



Connor Hagen

Lead Architect -
Microsoft Azure OpenAI
& AI Co-Innovation Labs



**Dr. Pavankumar
Gurazada**

Faculty



MENTORS

Learn from highly skilled professionals in Generative AI and Natural Language Processing who have engineered NLP solutions across verticals.



**Bradford
Tuckfield**

Founder



**Vinicio
DeSola**

Senior Data Scientist



**Ramya Girish
Balasubramaniam**

AI Engineer



PROGRAM FEE

\$1200

For more details on flexible fee payments, please contact a Program Advisor.

ABOUT GREAT LEARNING

Great Learning is a leading global ed-tech company that offers comprehensive, industry-relevant programs in Technology, Data, and Business domains. Collaborating with prestigious academic institutions such as Stanford Executive Education, MIT Professional Education, Wharton Online, The University of Texas at Austin, Northwestern School of Professional Studies, National University Singapore, Deakin University, IIT Madras, IIT Bombay, IIT Roorkee, IIIT-Delhi, Great Lakes Institute of Management, and more. Great Learning constantly revamps its programs to cater to the dynamic needs of the industry. The company offers blended, classroom, and online learning modes, providing an unparalleled experience to learners worldwide. With a mission to enable transformative learning and career success in the digital economy, Great Learning has impacted over 8.2 million learners from 170 countries.



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* EdTech Review
Awards 2020



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YOUR CAREER?

SPEAK TO A PROGRAM ADVISOR
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HAVE QUESTIONS ABOUT THE PROGRAM OR
HOW IT FITS IN WITH YOUR CAREER GOALS?
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VISIT OUR WEBSITE

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