

Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335)

Category: AI, Data & Analytics | **Vendor:** Trivera Tech

Duration: 16.00 hours (2 days)

13.0 CPD Hours

Rating: ★ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Immerse yourself in the transformative world of AI with the Azure OpenAI Boot Camp for Developers. This intensive, two-day program, designed for developers new to Azure OpenAI and OpenAI, offers an exceptional opportunity to harness AI's capabilities using the leading-edge Azure platform. This program is structured to give you a strong foundational understanding of AI and its diverse applications, from language translation to prediction modeling.

About This Course

Immerse yourself in the transformative world of AI with the Azure OpenAI Boot Camp for Developers. This intensive, two-day program, designed for developers new to Azure OpenAI and OpenAI, offers an exceptional opportunity to harness AI's capabilities using the leading-edge Azure platform. This program is structured to give you a strong foundational understanding of AI and its diverse applications, from language translation to prediction modeling.

Guided by our Microsoft Azure-certified AI expert instructor, you'll gain modern hands-on skills using cutting-edge tools to implement innovative AI solutions at your workplace, resulting in smarter applications and improved operational efficiency.

Throughout the course you'll explore five main themes: OpenAI and Azure OpenAI platforms, Generative AI, Azure OpenAI's capabilities, exploration of AI models, and prompt engineering. You'll gain core skills and gain hands-on practice with major AI models including GPT-4, GPT-3, DALL-E, Codex, and Embedding, learning how to apply them on the job or in your projects in a practical way. You'll also become adept at prompt engineering, a skill that is essential to the successful deployment and performance of AI tasks.

You'll engage with a wide array of subjects, from experimenting with Azure OpenAI's features to fine-tuning GPT models,

implementing embeddings and indexing, and establishing content filters. In addition, you'll learn about Azure OpenAI's

workload management, access procedures, and responsible AI practices. This ensures that all AI applications developed are not only high-performing and efficient but also ethically sound and compliant with regulations.

At the end of this immersive course, you will have gained a deep understanding of the distinctive features of both OpenAI and Azure OpenAI platforms, developed advanced skills in prompt engineering and fine-tuning AI models, and gained hands-on experience with the applications of embeddings and indexing. Moreover, you will have the practical knowledge to apply these skills to improve your organization's AI capabilities, opening the door to a new level of innovative solutions, and preparing you for the AI-focused world of tomorrow.

Who Should Attend

This Intermediate level course is geared for experienced technical professionals new to Azure and OpenAI who are eager to deepen their understanding of AI and apply it in their work. Roles might include data scientists,

machine learning engineers, AI researchers, and IT managers involved in AI strategy and deployment.

Prerequisites & Entry Requirements

General Prerequisites:

To ensure a smooth learning experience and maximize the benefits of attending this course, you should have the following

prerequisite skills:

- A basic understanding of artificial intelligence and its applications would help to quickly grasp the course content.
- A working knowledge of Python basics helpful but not required. Lab code will be supplied so you can simply run it for labs that require it.
- Basic Understanding of Data Structures
- Prior exposure to any cloud services platform (such as Azure, AWS, or Google Cloud) would be beneficial.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

This course combines engaging instructor-led presentations and useful demonstrations with valuable hands-on labs and engaging group activities. Throughout the course you'll:

- Gain a solid comprehension of the OpenAI and Azure OpenAI platforms, their unique features, and their capabilities.
- Develop an in-depth understanding of prominent AI models such as GPT-4, GPT-3, DALL-E, Codex, and Embedding, and their potential applications.
- Learn to manipulate the output of AI models effectively using the principles of prompt engineering.
- Gain the ability to fine-tune AI models efficiently, enhancing their performance for specific tasks.
- Obtain practical knowledge in implementing embeddings and indexing, integral parts of machine learning tasks.
- Understand Azure OpenAI's responsible AI practices, access policies, and security measures, fostering ethical and compliant AI applications within your organization.
- Grasp the principles and best practices of creating a private Business GPT, a critical skill in leveraging AI technology for business-specific applications.
- Develop proficiency in setting up and configuring content filters within Azure OpenAI Studio, enhancing the relevance and appropriateness of AI output.

Detailed Course Outline

Day 1

Introduction and Overview

Introduction to OpenAI and Azure OpenAI

Core competencies and objectives of OpenAI and Azure OpenAI

Distinctive features of both platforms

Comparative evaluation of OpenAI and Azure OpenAI

Hands-on Lab: Comparison of OpenAI and Azure OpenAI

Discussion and debrief

Unfolding Generative AI

Definition of generative AI

Evolution and historical context of generative AI

Use-cases of generative AI in various industries

Overview of generative AI algorithms and frameworks

Hands-on Lab: Investigating real-world applications of generative AI

Review and analysis of findings

Deep Dive into Azure OpenAI

Detailed overview of Azure OpenAI

In-depth analysis of Azure OpenAI's architecture and infrastructure

Key features and benefits of Azure OpenAI

Overview of Azure OpenAI applications and success stories

Hands-on Lab: Exploring Azure OpenAI capabilities through practical exercises

Discussion on insights and challenges

AI Models Exploration

Introduction to GPT-4, GPT-3, DALL-E, Codex, and Embedding

Overview of model development and evolution

Comparison of features and use-cases of each model

Exploration of the potential future advancements and applications of these models

Activity: Practical demonstration of different model uses

Analysis and review

The Art of Prompt Engineering: The Basics

Introduction to the concept of prompt engineering

Understanding the core principles of prompt engineering

Importance and role of prompt engineering in AI model performance

Analysis of common challenges and solutions in prompt engineering

Hands-on Lab: Basic of prompt engineering tasks

Discuss and review findings and strategies

Day 2

Mastering Prompt Engineering: Advanced Topics

Deep dive into advanced topics like space efficiency, few-shot learning, and non-chat scenarios

Exploration of key strategies like clear instructions, prime the output, and clear syntax

Review of real-world examples of advanced prompt engineering

Analysis of common mistakes and pitfalls in advanced prompt engineering

Hands-on Lab: Advanced prompt engineering activities

Review outcomes and insights

Azure OpenAI Workloads and Access

Overview of different Azure OpenAI workloads

Analysis of workload performance and scalability

Procedures for accessing the Azure OpenAI Service

Review of Azure OpenAI Service's reliability and maintenance

Hands-on Lab: Accessing and using Azure OpenAI

Discuss challenges and solutions

Fine-Tuning Mastery: GPT Model

Introduction to the concept of fine-tuning a GPT model

Understanding the mathematical principles behind fine-tuning

Steps and tips for efficient fine-tuning

Analysis of common challenges in fine-tuning and potential solutions

Hands-on Lab: Exercise to fine-tune a GPT model

Review outcomes and insights

Essentials of Embeddings and Indexing

Understanding embeddings and indexing

Introduction to the mathematical theories behind embeddings and indexing

Importance and real-world applications of embeddings and indexing

Discussion on the challenges and potential advancements in embeddings and indexing

Hands-on Lab: Practical activity on implementing embeddings and indexing

Discuss the application and challenges

Content Filtering Made Simple

Introduction to content filtering in Azure OpenAI Studio

Understanding the mathematical models behind content filtering

Key best practices for effective content filtering

Discussion on ethical and legal considerations in content filtering

Hands-on Lab: Set up and configure content filters

Discuss and review outcomes

Building a Private Business GPT

Concepts of LangChain and Llama Index

Introduction to the principles and best practices in GPT business application

Guidelines for creating a private business GPT

Discussion on the challenges and future of business GPTs

Hands-on Lab: Create a private business GPT

Discuss and review project

Ensuring Security and Effective Monitoring

Introduction to Azure Tooling for security

Overview of the principles of secure AI deployment

Best practices for monitoring Azure OpenAI applications

Discuss future challenges and advancements in AI security and monitoring

Hands-on Lab: Practical activities on security setup and monitoring

Discuss outcomes and insights

Azure OpenAI Responsible AI Practices and Limited Access Policies

Overview of Azure OpenAI's responsible AI practices

Understanding the ethical considerations in AI application

Understanding Azure OpenAI's limited access policies

Discussion on the legal framework and potential challenges in AI access policies

Hands-on Lab: Implementing responsible AI practices

Discuss outcomes, analysis and insights

Capstone Project

FINAL LAB: Comprehensive project that integrates learning from all modules

Final project review and feedback session

Wrap-up, Q&A

Additional Course Details

Nexus Humans Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
 - Traditional Instructor-Led Classroom Training (ILT)
 - On-site delivery at your offices anywhere in United Kingdom
 - Private dedicated courses customized for your team
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Q: How many CPD hours does this course provide?

The 2-day Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335) course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335) training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335)?

Yes, we provide corporate training, dedicated training, and closed classes for Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: AI; Machine Learning; Azure; Generative AI

Q: Why choose Nexus Human for Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Azure OpenAI Boot Camp for Developers: Platform, Generative AI, Models, Prompt Engineering (TTAI2335) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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