AI & Machine Learning SkillJourneys

Leveraging OpenAI for Enterprise Solutions: Business-Focused AI Boot Camp (TTAI2203)

Use Cutting-Edge Tech to Generate Code, Documentation, and Tests, Enhance User Interfaces, and Create Flexible, Dynamic Content

Course Snapshot

- **Course: Leveraging OpenAI for Enterprise Solutions: Business-Focused AI Boot Camp (TTAI2203)**
- **Duration**: 4 days
- **Audience & Skill Level:** This **intermediate and beyond level** course is designed for experienced developers, data scientists, and business intelligence professionals looking to leverage OpenAI technologies for business applications. Technical skills are required.
- **Hands-on:** This course combines engaging instructor-led presentations and practical demonstrations with hands-on exercises, challenge labs, use case exploration and engaging group activities. Student machines are required.
- **Format**: This course can be delivered for your team or organization **online live (virtual)**, **onsite in-person** or across our robust **blended learning experience platform (LXP).**
- **Public Schedule**: This course is currently available on our **Public Open Enrollment Schedule**.
- **Customizable**: This course agenda, topics, labs, hours and delivery modalities can be adjusted to target your specific training skills objectives, tools and learning goals. Please ask for details.

Overview

Welcome to the **Leveraging OpenAI for Enterprise Solutions / AI for Business Boot Camp**, a four-day immersive course that explores the exciting opportunities OpenAI provides for improving business processes and creating innovative, AI-driven applications. Throughout the course, you'll learn to directly apply these new technologies to real-world situations, improving your organization's operations and creating new business opportunities. From enhancing customer service with automated voice commands to developing AI-driven applications, you'll acquire a set of powerful, versatile tools that have immediate, practical implications.

Throughout the course, guided by our engaging AI expert instructor, you'll gain mastery over OpenAI's large language models (LLMs), the OpenAI API (Python flavor), and GPT-3 & 4 Prompt Engineering for Business Class NLP. You'll work with OpenAI Whisper's enterprise-strength speech recognition capabilities, providing you with the know-how to implement it in your business operations. You'll also gain practical experience using the OpenAI Embedding API for searching vast arrays of documents, creating user-friendly front ends for OpenAI ChatGPT and Dall-E2 Apps, and integrating voice commands and live transcription into your applications. You'll also learn the invaluable skill of how to develop an industry-specific advisor or consultant using GPT embeddings, ensuring you can create tailored AI solutions for your organization.

You'll exit the class not only with a solid understanding of OpenAI tools and capabilities, but also the confidence to apply them effectively within your organization. On completion, you'll have a deep understanding of OpenAI tools and capabilities and be confident in applying them within your organization. From building a GPT model using private business data to creating a comprehensive GPT application, you'll be ready to use your newly acquired AI skills to drive significant improvements in your organization, navigate the evolving field of AI, and take on the future of business with confidence.

Learning Objectives

Working in an interactive learning environment, led by our engaging AI expert you'll:
- Develop a robust understanding of OpenAI and its large language models (LLMs), along with their potential implications and applications within the business landscape.
- Gain proficiency in the OpenAI API (Python flavor) to harness its capabilities effectively and efficiently for real-world tasks and projects.
- Master Enterprise Strength Speech Recognition with OpenAI Whisper, learning how to integrate this powerful tool into business processes and overcome any associated challenges.

- Learn to utilize the OpenAI Embedding API for effective searching within massive collections of business and legal documents, enhancing efficiency and productivity.
- Understand and implement the design and creation of user-friendly front-ends for AI applications, such as OpenAI ChatGPT and Dall-E2 Apps, focusing on user experience and integration.
- Acquire the skills to build an industry-specific advisor or consultant using GPT embeddings, customizing and optimizing this tool to suit your organization's specific needs and challenges.

Audience

This **intermediate and beyond level** course is designed for experienced developers, data scientists, and business intelligence professionals looking to leverage OpenAI technologies for business applications.

Pre-Requisites

This course is highly technical in nature. In order to gain the most from attending you should possess the following incoming skills:
- Basic working knowledge of Python programming, including data structures, control flow, and functions.
- Python programming experience (Python syntax and constructs, experience with NumPy and Pandas)
- Basic understanding of artificial intelligence and machine learning principles
- Understanding the basic principles of APIs, including how to make API calls and handle responses, is essential as the course includes hands-on sessions with the OpenAI API.
- Given that the course involves working with large language models (LLMs) and creating NLP applications, some prior exposure to NLP concepts would be beneficial.
- Experience in developing, testing, and deploying software applications can help participants understand the process of integrating AI capabilities into practical business applications.

Take Before: You should have incoming skills aligned with the topics in the course(s) below, or should attend as a pre-requisite:
- TTPS4800   Introduction to Python Programming Basics (3 days)
- TTML5502   Exploring AI & Machine Learning Essentials (Hands-on Overview) (2 days)

Next Steps / Follow-on Courses: We offer a wide variety of follow-on courses and learning paths for Generative AI, AI for Business, GPT, Applied AI, Azure OpenAI, Google BARD, AI for developers, testers, data analytics, machine learning, deep learning, programming, intelligent automation and many other related topics. Please see our catalog for the current **AI & Machine Learning Courses, Learning Journeys & Skills Roadmaps**, list courses and programs.

Course Topics / Agenda

Please note that this list of topics is based on our standard course offering, evolved from typical industry uses and trends. We'll work with you to tune this course and level of coverage to target the skills you need most. Topics, agenda and labs are subject to change, and may adjust during live delivery based on audience skill level, interests and participation.

Day 1

1. **OpenAI and LLMs for Business Overview**
- Introduction to OpenAI and its large language models (LLMs)
- Understanding the business implications of LLMs
- Identifying potential use-cases in your industry

2. **Enterprise Strength Speech Recognition (with OpenAI Whisper)**
- An introduction to Whisper and its capabilities
- Implementing Whisper for speech recognition tasks
- Overcoming challenges and ensuring accuracy

3. **OpenAI API (Python Flavor)**
- Understanding the OpenAI API and how to leverage it using Python
- Coding sessions to understand API calls and responses
- Error handling and optimization techniques

4. **OpenAI GPT-3 & 4 Prompt Engineering for Business Class NLP**
- Introduction to GPT-3 & GPT-4, and understanding their functionalities
- Learning prompt engineering for business class natural language processing

- Hands-on: Building simple NLP applications using GPT-3 & 4

Day 2

5. **OpenAI Embedding API (Searching Massive Collections of Business and Legal Documents)**
- Detailed overview of OpenAI's Embedding API
- Strategies for efficient document search in large datasets
- Hands-on: Implementing a document search engine for business and legal documents

6. **Build a Front End for OpenAI ChatGPT and Dall-E2 Apps**
- Designing and implementing user-friendly front-ends for AI applications
- Integrating ChatGPT and Dall-E2 into business applications
- User experience considerations for AI-powered apps

7. **Voice Commands and Live Transcription**
- Understanding the technology behind voice commands and live transcription
- Implementing these features into your applications
- Ensuring accuracy and handling potential errors

Day 3

8. **Build an Industry Specific Advisor / Consultant using GPT Embeddings**
- Understanding GPT embeddings and their use-cases
- Developing an industry-specific advisor or consultant using GPT embeddings
- Strategies for customization and optimization

9. **AI in Your World: Reserved for Additional Topics and Q&A**
- An open session for discussing additional topics of interest
- Interactive Q&A to address any queries or challenges encountered

10. **Voice Cloning with GPT Embeddings**
- Introduction to voice cloning technology
- Using GPT embeddings for voice cloning
- Ethical considerations and potential business applications

Day 4

11. **Build a GPT model with Private Business Data**
- Strategies for training GPT models with private data
- Ensuring data privacy and security
- Hands-on: Building a GPT model using business-specific data

12. **End to End GPT App with Private Business Data**
- Combining the skills learned to develop an end-to-end GPT application
- Deploying and maintaining your application
- Potential challenges and troubleshooting tips

Setup Made Simple! Learning Experience Platform (LXP)

All applicable course software, digital courseware files or course notes, labs, data sets and solutions, live coaching support channels and rich extended learning and post training resources are provided for you in our "easy access, no install required" online **Learning Experience Platform (LXP),** remote lab and content environment. Access periods vary by course. We'll collaborate with you to ensure your team is set up and ready to go well in advance of the class. Please inquire about set up details and options for your specific course of interest.

For More Information

For more information about our training services (instructor-led, self-paced or blended), collaborative coaching services, robust Learning Experience Platform (LXP), Career Experiences, public course schedule, partner programs, courseware licensing options or to see our complete list of course offerings, solutions and special offers, please visit us at **www.triveratech.com**, email **Info@triveratech.com** or call us toll free at **844-475-4559.** Our pricing and services are always satisfaction guaranteed.

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