6. ChatGPT

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| **Module** | **Time (Mins)** |
| --- | --- |
| **Module 1: Introduction to OpenAI and ChatGPT** |  |
| **Module 2: Business Use Cases of ChatGPT** |  |
| **Module 3: Deploying and Integrating ChatGPT in Business Applications** |  |
| **Module 4: GPT Models, Pre-processing and Fine-tuning ChatGPT** |  |
| **Module 5: Working with GPT-4 and OpenAI API** |  |
| **Module 6: Building and Deploying GPT-4 Powered Application** |  |
| **Module 7: Building Real-world Applications with OpenAI API and ChatGPT** |  |
| **Module 8: ChatGPT: Best Practices, Limitations, and Avenues for Future Development** |  |

**Module 1**: **Introduction to OpenAI and ChatGPT**

**Topics:**

* Emergence of ChatGPT
* What is ChatGPT?
* How does ChatGPT work?
* Applications of ChatGPT
* Introduction to OpenAI and its role in NLP and AI
* Overview of OpenAI's GPT models (e.g., GPT-2 and GPT-3)
* Sign up for an OpenAI API account
* Environment setup - OpenAI Key Authentication

**Module 2**: **Business Use Cases of ChatGPT**

**Topics:**

* Using ChatGPT for live coding
* Build, optimize, and scale business using ChatGPT
* Advanced SEO for digital marketers
* Creating social media posts with ChatGPT
* Using ChatGPT for language translation
* Using ChatGPT for YouTube scripts
* Code generation and code debugging with ChatGPT
* Content creation with ChatGPT
* Question answering
* Sentiment analysis

**Module 3**: **Deploying and Integrating ChatGPT in Business Applications**

**Topics:**

* Create serverless ChatGPT
* Integrate ChatGPT with Power Automate
* Integrate ChatGPT with Power Apps
* Integrate ChatGPT with Outlook
* Integrate ChatGPT with Bubble
* Integrate ChatGPT with Airtable
* Deployment on cloud platforms

**Module 4: GPT Models, Pre-processing and Fine-tuning ChatGPT**

**Topics:**

* Overview of language models
* Understanding the architecture of the GPT model
* GPT models: advantages and disadvantages
* Overview of the pre-trained GPT models available for fine-tuning
* Training of ChatGPT
* Data preparation
* Model architecture
* Hyperparameter tuning
* Training process

**Module 5**: **Working with GPT-4 and OpenAI API**

**Topics:**

* Introduction to GPT-4 and its capabilities
* Democratizing NLP
* Understanding prompts, completions, and tokens
* Understanding GPT-4 risks
* Understanding general GPT-4 use cases
* Content filtering
* Sentiment analysis using GPT-4
* Text summarization using GPT-4
* Question answering and information retrieval
* Introducing the Playground
* Handling text generation and classification tasks
* Understanding semantic search
* Understanding APIs
* Getting familiar with HTTP
* Reviewing the OpenAI API endpoints
* Introducing CURL and Postman
* Understanding API authentication
* Making an authenticated request to the OpenAI API
* Introducing JSON
* Using the Completions endpoint
* Using the Semantic Search endpoint

**Module 6**: **Building and Deploying GPT-4 Powered Application**

**Topics:**

* Setting up the GPT-4 API and integrating it into projects
* Building conversational AI for finance and e-commerce domain
* Strengths and limitations of GPT-4 in building conversational AI
* Scaling and deploying GPT-4 models to production

**Module 7: Building Real-world Applications with OpenAI API and ChatGPT Topics:**

* Build and deploy ChatGPT AI app
* Build diet planning application
* Build a website and create landing page content using ChatGPT

**Module 8**: **ChatGPT: Best Practices, Limitations, and Avenues for Future Development**

**Topics:**

* Ethical considerations
* Limitations of ChatGPT
* Best practices for using ChatGPT
* Future developments in the field of ChatGPT
* Opportunities for further learning and research