Open AI ChatGPT Course Content

Section 1: Introduction To Open AI And ChatGPT

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

Section 2: Business Use Cases of ChatGPT

- ➢ 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

Section 3: Developing Web Application using ChatGPT

- ➢ Building web development architecture
- ➢ Building backend server
- ➢ Setting up the database
- ➢ Setting up a React-based client-side application
- ➢ Writing user API requests to MongoDB with Express and React
- ➢ Fetching and updating the database with MongoDB API and routing with Express
- ➢ Routing to React-based client-side application
- ➢ Debugging and client-side coding

Section 4: Deploying and Integrating ChatGPT in Business Applications

- ➢ 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

Section 5: GPT Models, Pre-processing and Fine-tuning ChatGPT

GPT Models:

➢ Introduction to GPT models
➢ GPT-1, GPT-2, and GPT-3 models
➢ How GPT models work
➢ Limitations of GPT models
➢ Comparison with other language models (e.g., BERT, ELMo)

Pre-processing:

➢ Text pre-processing techniques (e.g., tokenization, stemming, stop word removal)
➢ Data cleaning and normalization
➢ Data augmentation techniques
➢ Handling missing data
➢ Encoding text data for machine learning models

Fine-tuning ChatGPT:

➢ Introduction to fine-tuning
➢ Preparing data for fine-tuning
➢ Choosing the right hyperparameters
➢ Evaluating fine-tuned models
➢ Fine-tuning for specific applications (e.g., chatbots, language translation, sentiment analysis)

Section 6: Uses of ChatGPT

➢ Using ChatGPT for Communication
➢ Using ChatGPT to Write Social Media Posts
➢ Using ChatGPT to Write Blog Articles
➢ Using ChatGPT to Generate a Book Outline
➢ Using ChatGPT to Write Podcast Scripts
➢ Using ChatGPT for Career Advancement
➢ Using ChatGPT to Improve Your Resume
➢ Using ChatGPT to Write Job Search Emails
➢ Using ChatGPT to Write Tailored Cover Letters

➤ Using ChatGPT for Search Engine Optimization (SEO)
➤ Using ChatGPT to Write Job Search Emails
➤ Using ChatGPT to Prepare for Job Interviews

Section 7: Using ChatGPT for Basic Coding

➤ Introduction to Basic Coding
➤ Using ChatGPT to Display 'Hello World' in Different Coding Languages
➤ Using ChatGPT to Explain What
➤ Code Does and Create Code Comments
➤ Using ChatGPT to Create a Basic Webpage in HTML
➤ Using ChatGPT to Style Your Webpage

Section 8: ChatGPT for Technology

➤ Introduction
➤ Using ChatGPT to Overcome Technical Issues
➤ Using ChatGPT to Overcome Compatibility Issues
➤ Using ChatGPT to Strengthen Security
➤ Using ChatGPT to Navigate Complex Software and Applications
➤ Using ChatGPT to Translate Technical Jargon

Section 9: ChatGPT Complete Course - Learn ChatGPT & Prompt Engineering

➤ Cracking the Code - Introduction
➤ Translating Code to Human-Readable Text
➤ Using ChatGPT for Code Completion
➤ Using ChatGPT for Debugging Code
➤ Translating Code from One Language to Another
➤ Using ChatGPT for Regular Expression – Regex

Section 10: ChatGPT Prompt Engineering and Design

➤ Introduction about Prompt Engineering and its design
➤ ChatGPT Prompt Engineering and Design Overview
➤ Going Deeper with Prompts – Effective Prompt Design with the Help of ChatGPT
➤ Concise vs. Verbose Spectrum of Responses
➤ Mass Prompting in ChatGPT

Section 11: LLM(Large Language Models) ChatGPT

➤ Introduction to LLM (Large Language Models)
➤ Application through Production
➤ Foundation Models from the Ground Up

Section 12: Neutral Networks

➢ Introduction to Neutral Networks
➢ Uses of Netural Netwotks in ChatGPT

Section 13: Working with Open AI and ChatGPT API

➢ Introducing the Playground
➢ 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
➢ Working with GPT-3 API
➢ Implementing ChatGPT API

Section 14: Working ChatGPT - 3 (Self-Paced)

➢ Introduction to GPT-3 and its capabilities
➢ Democratizing NLP
➢ Understanding prompts, completions, and tokens
➢ Understanding GPT-3 risks
➢ Understanding general GPT-3 use cases
➢ Content filtering
➢ Sentiment analysis using GPT-3
➢ Text summarization using GPT-3
➢ Question answering and information retrieval
➢ Handling text generation and classification tasks

Section 15: Advanced ChatGPT Development Techniques

➢ Advanced ChatGPT Development Techniques Introduction
➢ Using ChatGPT to Generate Sample Data
➢ Using ChatGPT to Create a Python Fake Data Generator
➢ Generating Website Ideas with ChatGPT
➢ Building Webpages in HTML with ChatGPT
➢ Integrating ChatGPT with Visual Studio Code
➢ Creating Algorithms with ChatGPT
➢ Creating Batch Apex with ChatGPT

➢ Using ChatGPT to Write a SQL Query
➢ Using ChatGPT to Create Games in Python

Section 16: Building and Deploying GPT-3 Powered Application

➢ Introduction to building and deploying GPT-3 powered applications
➢ Overview of GPT-3 APIs and SDKs
➢ Choosing the right programming language and environment for your application
➢ Setting up the GPT-3 API and integrating it into projects
➢ Building conversational AI for finance and e-commerce domain
➢ Strengths and limitations of GPT-3 in building conversational AI
➢ Monitoring and scaling the application
➢ Building custom prompts and fine-tuning GPT-3 models for your application
➢ Security and privacy considerations when working with GPT-3
➢ Best practices for building and deploying GPT-3 powered applications
➢ Scaling and deploying GPT-3 models to production

Section 17: Building Real-world Applications with OpenAI and ChatGPT

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

Section 18: ChatGPT: Best Practices

➢ Data cleaning and preparation techniques
➢ Choosing the right hyperparameters
➢ Evaluating model performance
➢ Using pre-trained models and fine-tuning
➢ Managing bias and ethical considerations
➢ Creating diverse and representative training data
➢ Building user-friendly interfaces for chatbots and virtual assistants
➢ Handling user data and privacy concerns
➢ Debugging and troubleshooting common errors
➢ Continuous model monitoring and updating.

Section 19: ChatGPT: Limitations

➢ Training data quality and quantity
➢ Generalization and transfer learning
➢ Understanding and mitigating model bias
➢ Explainability and interpretability
➢ Scalability and speed of inference
➢ Support for low-resource languages and dialects

➢ Interoperability with other models and APIs
➢ Adversarial attacks and security concerns
➢ Availability and accessibility of computational resources.

Section 20: ChatGPT: Avenues for Future Development

➢ Multi-modal models for text, image, and audio processing
➢ Multi-task and meta-learning approaches
➢ Advanced transfer learning and self-supervised techniques
➢ Integrating knowledge graphs and semantic web technologies
➢ Addressing ethical and social issues in natural language processing
➢ Designing models for personalized and adaptive user experiences