Application Development with AI

- 3-Day Class
- Hands-on labs

Course Overview

This three-day course provides a comprehensive guide to developing custom GPTs for AI Assisted Application Development. Attendees will leave with a clear understanding of prompting techniques for Application development, building/configuring a custom GPT, and end-to-end application development with AI Assistance.

With over 39 labs and lectures, this course is designed to be a hands-on intensive primer for anyone who needs to develop applications with AI Assistance.

Direct access to the AI Platform is not required. All traffic to and from AI Platforms is provided through the training provider. Open AI Plus Subscription REQUIRED. All covered content makes use of ChatGPT Premium features.

- Access the classroom from anywhere via browser and internet.
- Obtain hands-on experience with the most widely used, industry-standard software, tools, and frameworks.
- Learn to develop your own AI Application Development Assistant with Custom GPTs.
- Develop an application from start to finish, using a Custom GPT.

Who Should Attend

- Application Developers
- Project Managers
- System Engineers
- DevOps Management
- Prompt Engineers
- Staff Responsible for integrating Gen AI into project Workflows

What You'll Learn

- Introduction to AI Assisted Application Development
- Understand Large Language Models and how to Prompt them
- Defining Prompts, and Prompt Parameters
- Deploy Advanced Prompting Techniques to maximize results
- Build and Configure a Custom GPT
- Develop Instructions for a Custom GPT
- Fine-Tune a Custom GPT
- Learn Complex Programming Concepts with AI Assistance
- Plan/Scope out a Project with AI Assistance
- Develop and Write Code with AI Assistance
- Deploy an Application with AI Assistance
- Develop an application from start to finish with AI Assistance

Outline

Prompt Engineering

- ⌨ Lecture: Large Language Models
- 🖥 Lecture: Writing Prompts for LLMs
- 🖥 Lecture + Lab: Prompting an AI Model
- 🖥 Lecture + Lab: Define Prompt Parameters: Task/Inputs/Outputs/Constraints/Style
- 🖥 Lecture + Lab: Prompt Techniques: Chaining, Set Role, Feedback, Examples

Build your own AI Application Development Assistant

- ⌨ Lecture: Build a Custom GPTs
- 🖥 Lecture + Lab: Develop Instructions for Custom GPT
- 🖥 Lecture + Lab: Fine Tune a Custom GPT
- 🖥 Lecture + Lab: Deploy a Custom GPT
- 🖥 Lecture + Lab: Update a Custom GPT
- 🏆 Challenge: Class Project: Build your own GPT Powered AI Application Development Assistant

Class Project

- 🏆 Challenge: Class Project: Build and Deploy an Application with your own GPT

Learn Programming Concepts with AI

- ⌨ Lecture: Strategies for Learning with AI
- 🖥 Lecture + Lab: Describe Complex Code Blocks
- 🖥 Lecture + Lab: Ask the Code - Plugin Tools

Plan and Scope Application

- ⌨ Lecture: Getting Started with AI
- 🖥 Lecture + Lab: Build your Application Plan
- 🏆 Challenge: Class Project: Scope out your Project /w AI

Code Interpreter (CI)

- ⌨ Lecture: ChatGPT 4 Code Interpreter (CI)
- ⌨ Lecture: Prompt Strategies to Generate Code
- 🖥 Lecture + Lab: Generate Code using ChatGPT CI
- ⌨ Lecture: Executing Code
- 🖥 Lecture + Lab: Execute Code using ChatGPT CI
- ⌨ Lecture: Programming Assistance
- 🖥 Lecture + Lab: Debugging Code using ChatGPT CI
- 🏆 Challenge: Class Project: Build/Develop your Project /w ChatGPT CI

Containerization and Microservices

- ⌨ Lecture: Microservices Overview
- 🖥 Lecture + Lab: Strangle a Monolithic Application /w AI
- 🖥 Lecture + Lab: AI Assisted Docker Image Creation
- 🖥 Lecture + Lab: Deploy an Application using Docker Compose and AI
- 🖥 Lecture + Lab: Deploy an Application in Kubernetes /w AI
- 🏆 Challenge: Class Project: Deploy your Application using AI Assistance

Prerequisites

- Previous exposure to any programming language, preferably Python
- Experience writing prompts, or previous prompt engineering training/experience helpful, but not required