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. Review this course online at https://www.alta3.com/courses/ai-app-dev

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: What is Intelligence?
- 💬 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

Class Project

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

Build your own AI Application Development Assistant

- 💬 Lecture: Building Purpose Driven GPTs!
- 💻 Lecture + Lab: Develop Instructions for Custom GPT
- 💻 Lecture + Lab: Define Knowledge Base for a Custom GPT
- 💻 Lecture + Lab: Build a Custom GPT
- 🏆 Challenge: Class Project: Build your own GPT Powered AI Application Development Assistant

Learn Programming Concepts with AI

- 💬 Lecture: Strategies for Learning with AI
- 💻 Lecture + Lab: Leveraging GPT for AI-Augmented Learning

Plan and Scope Application

- 💬 Lecture: AI-Augmented Project Planning
- 💻 Lecture + Lab: Project Plan/Scope Development with AI
- 🏆 Challenge: Class Project: Scope out your Project /w AI

GitHub Copilot

- 💬 Lecture: Introduction to GitHub Copilot
- 💻 Lecture + Lab: GitHub Copilot Account Setup
- 💻 Lecture + Lab: Setup Copilot with VIM
- 💻 Lecture + Lab: Copilot in the CLI

AI Chat Interactions for Programing

- 💬 Lecture: ChatGPT 4 Code Interpreter (CI)
- 💬 Lecture: Optimizing Prompt Strategies for Code Generation
- 💻 Lecture + Lab: Execute Code using ChatGPT CI

Containerization and Microservices

- 💬 Lecture: Microservices Overview
- 💻 Lecture + Lab: Deploy Kubernetes Using Ansible
- 💻 Lecture + Lab: Using AI to Create/Manage a Docker Container
- 💻 Lecture + Lab: Deploy an Application in Kubernetes /w AI

Prerequisites

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