Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300)

Category: AI, Data & Analytics | **Vendor:** Trivera Tech

Duration: 8.00 hours (1 days) **6.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Quick Start to Prompt Engineering for Coders and Software Developers®is a one day course designed to get you quickly up and running with the prompting skills required to out AI to work for you in your development efforts. ®Guided by our AI expert, you'll explore key topics such as text preprocessing, data cleansing, GPT-4 tokenization, input formatting, prompt design, and optimization, as well as ethical considerations in prompt engineering.

About This Course

Prompt Engineering offers coders and software developers a competitive edge by empowering them to develop more effective and efficient AI-driven solutions in their projects. By harnessing the capabilities of cutting-edge AI models like GPT-4, coders can automate repetitive tasks, enhance natural language understanding, and even generate code suggestions, boosting productivity and creativity. In addition, mastering prompt engineering can contribute to improved job security, as professionals with these in-demand skills are highly sought after in the rapidly evolving tech landscape.

Quick Start to Prompt Engineering for Coders and Software Developers is a one day course designed to get you quickly up and running with the prompting skills required to out AI to work for you in your development efforts. Guided by our AI expert, you'll explore key topics such as text preprocessing, data cleansing, GPT-4 tokenization, input formatting, prompt design, and optimization, as well as ethical considerations in prompt engineering.

In the hands-on labs you'll explore tasks such as formatting inputs for GPT-4, designing and optimizing prompts for business applications, and implementing multi-turn conversations with AI. You'll work with innovative tools like the OpenAI API, OpenAI Codex, and OpenAI Playground, enhancing your learning experience while preparing you for integrating prompt engineering into your professional toolkit.

By the end of this immersive course, you'll have the skills necessary to effectively use prompt engineering in your software development projects. You'll be able to design, optimize, and test prompts for various business tasks, integrate GPT-4 with other software platforms, and address ethical concerns in AI deployment.

Who Should Attend

This handson course is geared for software developers who want to work with AI technologies to an advanced level to rveiew, test and develop code.

Prerequisites & Entry Requirements

General Prerequisites:

To gain the most from attending this course you should possess the following incoming skills:

-Basic knowledge of programming concepts and syntax in Python.

-Familiarity with common data formats such as CSV, JSON, and XML.

-Experience using command-line interfaces and basic text editing tools.

-Understanding of basic machine learning concepts and algorithms.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Working in an interactive learning environment, led by our engaging expert, you will:
-Gain a solid understanding of prompt engineering concepts and their applications in software development and AI-driven solutions.
-Master the techniques for preprocessing and cleaning text data to ensure high-quality inputs for AI models like GPT-4.
-Develop expertise in GPT-4 tokenization, input formatting, and controlling model behavior for various tasks and requirements.
-Acquire the ability to design, optimize, and test prompts effectively, catering to diverse business applications and use cases.
-Learn advanced prompt engineering techniques, such as conditional text generation and multi-turn conversations, to create more sophisticated AI solutions.
-Practice creating prompts to generate, run, and test code in a chosen programming language using GPT-4 and OpenAI Codex.
-Understand the ethical implications and best practices in responsible AI deployment, ensuring fair and unbiased AI applications in software development.

Detailed Course Outline

Introduction to Prompt Engineering

Overview of prompt engineering and its importance in AI applications

Major applications of prompt engineering in business

Common challenges faced in prompt engineering

Overview of GPT-4 and its role in prompt engineering

Key terminology and concepts in prompt engineering

Getting Things Ready: Text Preprocessing and Data Cleansing

Importance of data preprocessing in prompt engineering

Techniques for text cleaning and normalization

Tokenization and n-grams

Stop word removal and stemming

Regular expressions and pattern matching

Lab: Hands-on exercise using Python and the NLTK library to preprocess and clean a sample dataset.

GPT-4 Tokenization and Input Formatting

GPT-4 tokenization and its role in prompt engineering

Understanding and formatting GPT-4 inputs

Context windows and token limits

Controlling response length and quality

Techniques for handling out-of-vocabulary tokens

Lab: Practice tokenizing text and formatting inputs using the GPT-4 Python API.

Prompt Design and Optimization

Master the skills to design, optimize, and test prompts for various business tasks.

Designing effective prompts for different tasks

Techniques for prompt optimization

GPT-4 system and user parameters for controlling behavior

Importance of prompt testing and iteration

Best practices for prompt engineering in business applications

Lab: Create and optimize prompts for a sample business task using the GPT-4 Python API.

Advanced Techniques and Tools in Prompt Engineering

Learn advanced techniques and tools for prompt engineering and their integration in business applications.

Conditional text generation with GPT-4

Techniques for handling multi-turn conversations

Overview of tools for prompt engineering: OpenAI API, OpenAI Codex, and OpenAI Playground

Integration of GPT-4 with other software platforms and tools

Monitoring and maintaining prompt performance

Lab: Implement a multi-turn conversation with GPT-4 using OpenAI Codex and OpenAI Playground.

Code Generation and Testing with Prompt Engineering

Develop the skills to generate, integrate, and test AI-generated code effectively, enhancing productivity and creativity in software development projects.

Introduction to code generation with AI models like GPT-4

Designing prompts for code generation across programming languages

Techniques for specifying requirements and constraints in prompts

Generating and interpreting code snippets using AI-driven solutions

Integrating generated code into existing projects and codebases

Best practices for testing and validating AI-generated code

Lab: Practice creating prompts to generate, run, and test code in a chosen programming language using GPT-4 and OpenAI Codex.

Ethics and Responsible AI

Understand the ethical implications of prompt engineering and the importance of responsible AI deployment in business.

Ethical considerations in prompt engineering

Bias in AI systems and its impact on prompt engineering

Techniques to minimize bias and ensure fairness

Best practices for responsible AI deployment in business applications

Monitoring and addressing ethical concerns in prompt engineering

Additional Course Details

Nexus Humans Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 1-day Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300) course provides up to 6.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300) training?

The training takes place over 1 day(s), with each day lasting approximately 8.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300)?

Yes, we provide corporate training, dedicated training, and closed classes for Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: AI; GPT; Prompt Engineering

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Q: Why choose Nexus Human for Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Quick Start to Mastering Prompt Engineering for Software Developers (TTAI2300) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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