Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305)

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

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Turbocharge Your Code! Generative AI Boot Camp for Developers®is a three-day workshop-style course that teaches you the latest skills and tools required to master generative AI models, transforming the way you approach software development. In today's fast-paced technological landscape, generative AI has emerged as a game-changer, with leading companies like NVIDIA, OpenAI, and Google leveraging its capabilities to push the boundaries of innovation.

About This Course

Generative AI represents an exhilarating frontier in artificial intelligence, specializing in the creation of new data instances, imitation of real data, and content generation. Its remarkable capabilities facilitate automated content creation, enriched user experiences, and groundbreaking solutions across diverse industries, ultimately fueling efficiency and transcending technological limits. By harnessing the power of generative AI, developers can craft dynamic content, produce code and documentation, refine user interfaces, and devise customized recommendations, empowering them to construct highly efficient and custom solutions for a wide range of applications.

Designed for experienced programmers, Turbocharge Your Code! Generative AI Boot Camp for Developers is a three-day workshop-style course that teaches you the latest skills and tools required to master generative AI models, transforming the way you approach software development. In today's fast-paced technological landscape, generative AI has emerged as a game-changer, with leading companies like NVIDIA, OpenAI, and Google leveraging its capabilities to push the boundaries of innovation.

By learning how to harness the power of generative models such as GANs, VAEs, and Transformer models, you will be able to generate code, documentation, and tests, enhance user interfaces, and create dynamic content that adapts to user needs.

Our comprehensive curriculum covers everything from the fundamentals of generative AI to advanced techniques and ethical considerations, including hands-on labs where you will develop and deploy custom models using state-of-the-art AI tools and libraries like TensorFlow and Hugging Face Transformers.

Throughout the course you'll focus on practical application and collaboration, building confidence with personalized guidance and real-time feedback from our expert live instructor. Upon completion, you will be equipped with the knowledge and experience necessary to develop and implement innovative generative AI models across various industries, improving existing products, creating new applications, and gaining highly-valuable skills in the rapidly advancing field of AI.

Who Should Attend

This intermediate and beyond level course is ideal for experienced programmers who want to use this cutting-edge tech to generate code, documentation and tests, enhance user interfaces, and create dynamic content
that adapts to user needs.

Prerequisites & Entry Requirements

General Prerequisites:

This course is highly technical in nature. In order to gain the most from attending you should possess the following incoming
skills:

- Python programming experience (Python syntax and constructs, experience with NumPy and Pandas)
- Basic understanding of artificial intelligence and machine learning concepts (supervised and unsupervised learning, neural
networks, optimization techniques)
- Some experience with data manipulation and preprocessing , including working with various data formats, such as text,
images, and structured data, preprocessing and cleaning data for use in machine learning models.

Learning Outcomes

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

Working in an interactive learning environment, led by our engaging AI expert you'll:
- Develop a strong foundational understanding of generative AI techniques and their applications in software development.
- Gain hands-on experience working with popular generative AI models, including Generative Adversarial Networks (GANs), Variational Autoencoders (VAEs), and Transformer models.
- Master the use of leading AI libraries and frameworks, such as TensorFlow, Keras, and Hugging Face Transformers, for implementing generative AI models.
- Acquire the skills to design, train, optimize, and evaluate custom generative AI models tailored to specific software
development tasks.
- Learn to fine-tune pre-trained generative AI models for targeted applications and deploy them effectively in various
environments, including cloud-based services and on-premises servers.
- Understand and address the ethical, legal, and safety considerations of using generative AI, including mitigating biases and ensuring responsible AI-generated content.

Detailed Course Outline

Day 1

Introduction to Generative AI

Unveil the world of generative AI and its applications.

Brief history of generative AI

Overview of generative models

Types of generative AI techniques

Applications of generative AI

Lab: Setting up the development environment

Deep Learning and GANs

Dive into the fundamentals of GANs and their applications.

Introduction to deep learning

Basic components of GANs

GAN architecture and training process

Common GAN variants and applications

Lab: Simple GAN implementation: Generate synthetic images with GAN; using TensorFlow, Keras

Variational Autoencoders (VAEs)

Explore VAEs and learn their applications in generative AI.

Introduction to VAEs

VAE architecture and training process

Applications of VAEs

Comparing VAEs and GANs

Lab: VAE for image generation: Create images with a VAE model; using TensorFlow and Keras

Day 2

Natural Language Generation (NLG)

Uncover the power of NLG and its applications in generative AI.

Introduction to NLG

Overview of language models

Transformer architecture and variants

Applications of NLG in generative AI

Lab: Text generation using GPT: Generate text with GPT-based models; using Hugging Face Transformers

Ethical AI / Ethics and Responsible AI

Understand the ethical implications of generative AI applications.

AI ethics and its importance

Bias in generative models

Responsible AI and best practices

Future research and open problems

Lab: Bias detection and mitigation: Identify and mitigate biases in generative models; using TensorFlow, AI Fairness 360

Day 3

Multimodal Generative AI

Discover the potential of combining different data modalities in generative AI.

Introduction to multimodal AI

Text-to-image synthesis

Audio-to-video synthesis

Applications of multimodal generative AI

Style Transfer and Neural Art

Explore the creative side of generative AI with style transfer techniques.

Introduction to style transfer

Neural style transfer algorithms

Applications of style transfer in generative AI

Limitations and future directions

Lab: Implement neural style transfer: Create artistic images using neural style transfer; using TensorFlow, Keras, VGG-19

Applying Generative AI in the Real World

Gain insights on practical applications of generative AI across various domains.

Generative AI in marketing and advertising

Generative AI in entertainment and gaming

Generative AI in healthcare and life sciences

Generative AI in finance and economics

Lab: Develop a simple AI-powered application: Build a practical generative AI application; using Pinecone and LangChain

Capstone: Building and Deploying Generative AI Models

Learn best practices for building, fine-tuning, and deploying generative AI models.

Model selection and fine-tuning

Deployment strategies

Monitoring and maintenance

Ensuring user privacy and security

Lab: Deploy a generative AI model

Additional Course Details

Nexus Humans Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305) 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 Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305) 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 Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305)?

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 3-day Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305) course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305) training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305)?

Yes, we provide corporate training, dedicated training, and closed classes for Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305). 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; Generative AI

Q: Why choose Nexus Human for Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305)?

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 Turbocharge Your Code! Generative AI Boot Camp for Developers (TTAI2305) 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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