Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502)

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

Duration: 16.00 hours (2 days) **13.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Exploring AI & Machine Learning for the Enterprise Overview (with Light Hands-on) is a basic, primer-level course designed to provide you with a solid first-look at essential AI and machine learning technologies, related cutting-edge skills, and the innovative tools that support them, with a focus on how they are applied in business in a practical way. These transformative technologies offer paths to enhance decision-making, quickly modernize and improve operational efficiency, and drive innovation within your organization. Our engaging AI practitioner will guide you through useful lectures, valuable demonstrations and group discussions, along with light-hands-on activities working with some of the core skills and tools. Throughout the course, you ll learn what AI is and isn't, differentiating between AI, Machine Learning and Deep Learning, and what's happening with trending Large Language Model use. You ll also examine processing language, images, and audio with AI. No deep math skills required. We'll also touch on hot topics and trends in AI, NLP, Neural Networks, Generative AI, GPT, and a preview of what's next for AI in the business context. You ll exit the class with a high-level understanding of these technologies to a conversant level, able to move forward to engage in related discussions and participate in strategic decisions around AI and Machine Learning implementations, as well as ready to springboard into next-level learning programs in these areas.

About This Course

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Who Should Attend

This course is ideally suited for a wide variety of technical learners just getting started with AI or machine Learning, seeking a primerlevel overview of these technologies, skills and related tools.
Attendees might include:
Developers aspiring to be a 'Data Scientist' or Machine Learning engineers
Analytics Managers who are leading a team of analysts
Business Analysts who want to understand data science techniques
Information Architects who want to gain expertise in Machine Learning algorithms
Analytics professionals who want to work in machine learning or artificial intelligence
Graduates looking to build a career in Data Science and machine learning
Experienced professionals who would like to harness machine learning in their fields to get more insight about customers

Prerequisites & Entry Requirements

General Prerequisites:

Students attending this class should have a grounding in Enterprise computing. While there®®s no particular class to offer as a
prerequisite, students attending this course should be from a somewhat technical background, and familiar with Enterprise IT, have
a general (high-level) understanding of systems architecture, as well as some knowledge of the business drivers that might be able
to take advantage of applying AI.
Basic knowledge of Python scripting is also helpful but not required. The hands-on labs in this course may leverage some basic
Python scripts as needed, but the labs can be completed in a Ëœfollow-along®® format, under the guidance of the instructor. Prior
experience with Python can be helpful but is not necessary.

Learning Outcomes

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

Throughout the course you'll:
Gain a clear introduction to the exciting world of AI and Machine Learning, along with current trends and tools, enabling you to participate confidently in strategic discussions and help to make informed decisions.
Get a hands-on introduction to a few user-friendly tools and skills offering you a taste of the practical side of AI and Machine Learning.
Explore the practical business applications of AI and Machine Learning in an everyday context, and the potential influence of these technologies on your organization.
Learn the basics about algorithms, NLP, Neural Networks, GPT, Generative AI and other innovative tools, and how
Explore how AI plays a pivotal role in processing language, images, and audio
Learn how organizations maximize use of these technologies to their benefit to improve processes and maximize efficiencies

Detailed Course Outline

Introduction to AI & Machine Learning

- Understand what AI and Machine Learning are and why they're critical for modern business
- Exploring definitions and types of AI
- Discussing AI in the Modern Age and its role in business
- Embrace Change: Learn and Build Confidence using theTools Dont be Replaced By Them

Deeper Dive into Machine Learning

- Basics of how mathematics are used in or apply to AI
- Algorithms: What are they and how are they used in AI and ML
- Supervised vs Unsupervised
- Classification, Regression, Clustering, Dimensionality Reduction, and Ensemble Methods
- The role of Machine Learning in AI and business decision-making
- Demo: Algorithms in Action
- Case study: Review a real business scenario where Machine Learning was used to increase efficiency.

Leveraging AI in Business & Decision Making

- Discussing key business areas where AI adds value: Operations, Marketing, Sales, HR, content development, coding and software development
- Explore how AI is used in business decision-making
- Introduction to predictive analytics
- Using AI for strategic decisionmaking
- Demo & Review: Explore different AI tools used in businesses and the results achieved.

Hot Trends for AI in Business: Large Language Models (LLM), Generative AI and GPT

- Understand the basics of Generative AI and how it differs from other AI techniques
- Introduction to GPT and its applications in various sectors
- Explore how GPT uses machine learning to generate human-like text based on the input it receives.
- Understand the concept of language models and how they are trained using large amounts of text data
- Lab: Solve Business Problems with a GPT based tool and discuss its implications.

Basics of Neural Networks

- What are they and how are they used
- Basic parts: Neurons, activation functions, interactions.
- Types: Feedforward, recurrent, convolutional neural networks overview.
- How they learn: Forward propagation, backpropagation explained.
- Training Neural Networks: Importance of data preprocessing in training.
- Deep Neural Networks: Advantages and practical applications overview.
- In Action: Image recognition, language processing, etc. use cases.
- Ethical Considerations: Addressing biases and ethical concerns in neural networks.

Natural Language Processing (NLP) & Sentiment Analysis

- What is NLP and how is it used
- NLP Language and Semantic Meaning, Bigrams, Trigrams, nGrams, Root Stemming and Branching
- Introduction to Sentiment Analysis: Sentiment indicators, Sentiment Sampling, Predicting Elections based on Sentiment Analysis
- Lab: Use an online sentiment analysis tool to analyze customer feedback from a popular business

Using AI for Image, Video, and Audio Processing

- Learn about Image processing and Identification, Facial Analysis, Audio Processing
- Discuss the role of AI in analyzing streaming video and real-world AV processing
- Lab: Use AI in recognizing and analyzing images

AI for Business Technical Tools: Data Science, Deep Learning & The Cloud

- Applying AI in Data Science overview
- Tools: Python, NumPy, Pandas, SciKitLearn, Hadoop, Spark
- NoSQL Databases
- Deep Learning overview
- Tools: Tensorflow, Keras, NLTK
- AI for Business in the Cloud overview
- Tools: Azure, Google, IBM, Amazon solutions

Practical Applications and the Future of AI in Business

- What's next in applied AI for businesses
- New AI trends shaping the future of business
- Ethical considerations when implementing AI

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Supervised vs Unsupervised

Classification, and Ensemble Methods

The role of Machine Learning in AI and business decision-making

Demo: Algorithms in Action

Case study: Review a real business scenario where Machine Learning was used to increase efficiency.

Leveraging AI in Business & Decision Making

Discussing key business areas where AI adds value: Operations, coding and software development

Explore how AI is used in business decision-making

Introduction to predictive analytics

Using AI for strategic decision-making

Demo & Review: Explore different AI tools used in businesses and the results achieved.

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Lab: Use AI in recognizing and analyzing images

AI for Business Technical Tools: Data Science, Deep Learning & The Cloud

Applying AI in Data Science overview

Tools: Python, Spark

NoSQL Databases

Deep Learning overview

Tools: Tensorflow, NLTK

AI for Business in the Cloud overview

Tools: Azure, Amazon solutions

Practical Applications and the Future of AI in Business

What's next in applied AI for businesses

New AI trends shaping the future of business

Ethical considerations when implementing AI

Additional Course Details

Nexus Humans Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502) 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 Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502) 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 Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502)?

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 2-day Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502) course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502) training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502)?

Yes, we provide corporate training, dedicated training, and closed classes for Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502). 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; Machine Learning

Q: Why choose Nexus Human for Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502)?

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 Exploring AI & Machine Learning for the Enterprise / Hands-On Overview (TTML5502) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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