Deep Learning Essentials Boot Camp (TTAI3012)

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

Jump Start your Deep Learning journey in our two-day, hands-on®Deep Learning Essentials Boot Camp, where you'll learn to employ deep learning, a potent subset of machine learning that utilizes artificial neural networks to mimic human cognition. This skill will equip you to analyze complex data, make informed predictions, and significantly contribute to your organization's success.

About This Course

Jump Start your Deep Learning journey in our two-day, hands-on Deep Learning Essentials Boot Camp, where you'll learn to employ deep learning, a potent subset of machine learning that utilizes artificial neural networks to mimic human cognition. This skill will equip you to analyze complex data, make informed predictions, and significantly contribute to your organization's success

This comprehensive course covers a broad array of crucial topics. You'll explore the deep learning environment, become proficient with TensorFlow and Keras, and comprehend the principles of neural networks. You'll also learn to handle data preprocessing, model tuning, and optimization, as well as model deployment using TensorFlow Serving. As part of the interactive curriculum, 40% of the course is dedicated to hands-on lab work. This experience allows you to apply your newfound knowledge to real-world projects, such as implementing neural networks, enhancing model performance, and deploying trained models on a server.

By the conclusion of this course, you'll possess a robust foundation in deep learning with Python. You'll be competent in creating, training, and optimizing deep learning models, and applying these skills to solve data-centric problems within your organization. Under the guidance of an industry expert and with exposure to cutting-edge tools, this course promises to be a valuable stepping-stone in your deep learning journey.

Who Should Attend

This intermediate and beyond level course is geared for experienced professionals aiming to apply machine learning and deep learning to solve complex business problems, including product managers, data analysts, data scientists, developers, team leads, and other technical stakeholders who want to leverage deep learning for strategic decisions. It's also suited for those who are in roles that require them to work with data, understand patterns, or make predictions, such as business analysts, software developers, and researchers. Python experience is required.

Prerequisites & Entry Requirements

General Prerequisites:

To ensure a smooth learning experience and maximize the benefits of attending this course, you should have the following prerequisite skills:

-Python programming is required, as the labs revolve around leveraging Python. Basic skills in handling and manipulating data using Python libraries such as NumPy and Pandas would be advantageous.

-Familiarity with concepts such as variables, functions, control flow, and data structures will ensure a smooth learning experience.

-While the course will introduce deep learning from scratch, having a grasp of basic machine learning concepts will be beneficial.

-Some understanding of algebra and basic calculus will be helpful in comprehending the mathematical components of deep learning.

Learning Outcomes

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

This course combines engaging instructor-led presentations and useful demonstrations with valuable hands-on labs and engaging group activities. Throughout the course you'll learn how to:
-Gain a firm grasp of the fundamentals of deep learning, understanding the theory and math that powers it.
-Get comfortable with Anaconda and Jupyter Notebook, two essential tools in a data scientist's arsenal.
-Understand how to build, train, and deploy neural networks using Python, TensorFlow, and Keras.
-Dive deep into Python and its powerful libraries used for deep learning, becoming proficient in TensorFlow and Keras.
-Learn the art of data preprocessing, a critical skill in preparing data for machine learning models.
-Learn to tune and optimize your deep learning models to ensure they deliver the best performance possible. Uncover the mystery of various optimizers and learn to choose the right one.
-Bonus Content: Exploring GPT and its role in Deep Learning, and applying Generative AI to deep learning

Detailed Course Outline

Introduction to Deep Learning

Understand the concept and significance of deep learning in modern business.

Fundamental concepts in deep learning like neurons, layers, weights, bias, and activation functions.

Real-world use cases of deep learning in business.

Setting up Deep Learning Environment

Understand how to create an effective deep learning environment.

Basics of Anaconda and Jupyter notebook.

Lab: Set up a Python environment

Introduction to TensorFlow and Keras

Get an overview of TensorFlow and Keras.

Learn the process of creating a simple neural network using Keras.

Lab: Build a basic neural network

Fundamentals of Neural Networks

Understand what neural networks are and how they function.

Learn about forward propagation and backpropagation in a neural network.

Lab: Implement a Multi-Layer Perceptron (MLP) on a simple dataset

Working with Data in Deep Learning

Understand the importance of data preprocessing in deep learning.

Learn how to handle and preprocess different types of data - images, text, etc.

Lab: Preprocess a dataset for a deep learning task

Tuning and Optimizing Deep Learning Models

Learn about different types of optimizers - SGD, Adam, RMSprop, etc.

Learn how to save and load trained models.

Lab: Tune and optimize a neural network model

Deploying Deep Learning Models

Understand how to deploy deep learning models.

Learn about serving models with TensorFlow Serving.

Lab: Deploy a trained model

Real-world Applications of Deep Learning

Understand the real-world applications of deep learning.

Overview of deep learning in healthcare, finance, transportation, and more.

Bonus Chapters / Time Permitting

Bonus: Introduction to GPT and its Role in Deep Learning

Understand what GPT (Generative Pretrained Transformer) is and how it contributes to Deep Learning.

Explore how GPT models work and their architecture.

Discover GPT applications in natural language understanding and generation tasks.

Learn how GPT can assist in various job roles, such as customer service, content creation, etc.

Understand the ethical considerations around using generative models.

Lab

Additional Course Details

Nexus Humans Deep Learning Essentials Boot Camp (TTAI3012) 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 Deep Learning Essentials Boot Camp (TTAI3012) 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 Deep Learning Essentials Boot Camp (TTAI3012)?

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 Deep Learning Essentials Boot Camp (TTAI3012) 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 Deep Learning Essentials Boot Camp (TTAI3012) 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 Deep Learning Essentials Boot Camp (TTAI3012)?

Yes, we provide corporate training, dedicated training, and closed classes for Deep Learning Essentials Boot Camp (TTAI3012). 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; Deep Learning

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Q: Why choose Nexus Human for Deep Learning Essentials Boot Camp (TTAI3012)?

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 Deep Learning Essentials Boot Camp (TTAI3012) 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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