

## Deep Learning Overview

### Course Summary

#### Description

The Deep Learning Overview course is designed to give you a high-level understanding of what sort of problems deep learning can address and how deep learning can be practically integrated into products and businesses. It offers a minimally technical introduction to AI and deep learning, including: why deep learning has taken off in the past 5 years; how it is similar to – and different from – other kinds of business analytics, predictive analytics, and machine learning; and how to engage with the many free deep learning tools and techniques.

Although the class does not involve hands-on activities, it does include demonstrations of creating, training, and running deep-learning networks. By the end of this course, you will have a complete, high-level understanding of how deep learning works and what it can be useful for.

This course is ideal as a standalone introduction for managers, team leads, marketers, or analysts who want to get a feel for what deep learning is all about.

#### Objectives

By the end of this course, students will have gained a solid perspective on what deep learning is, why it has become so popular, what kind of problems it can solve, and when it may (or may not) be useful to meet business goals.

#### Topics

- What is Deep Learning, and what is it typically used for?
- Brief history of neural networks and why they are suddenly so popular.
- What kind of problems deep learning addresses well
- Problems, pitfalls, and challenges using neural networks and deep learning tools
- How to determine if deep learning may be helpful for a project or business
- Choosing the right level to engage: how to explore neural networks without a Ph.D. and without studying research papers
- Tools and frameworks: what toolkits to look at and how to integrate them with your existing data workflow
- Hardware: what servers or virtual machines you need (and don't need!) to explore deep learning

#### Audience

This course is suited to managers, team leads, marketers, or analysts who want a deep learning intro with less math, and less code. It is also suitable for engineers preparing to dive into a more technical class subsequent to this one.

#### Prerequisites

This course does not require any previous knowledge about deep learning, machine learning, math, or coding.

#### Duration

One day