

# Deep Learning Fundamentals

## About This Course

Get a crash course on the what there is to learn and how to go about learning more. **Deep Learning** presents a simplified explanation of some of the hottest topics in data science today:

- What is Deep Learning?
- What are convolutional neural networks?
- Why is deep learning so powerful and what can it be used for?
- Be part of a rapidly growing field in data science; there's no better time than now to get started with neural networks.

## Course Syllabus

### • **Module 1 - Deep Learning Concepts**

1. What is a neural network?
2. Why Deep Learning?
3. How to choose between deep neural networks?
4. An old problem: The Vanishing Gradient
5. Restricted Boltzmann Machines
6. Deep Belief Networks

### • **Module 2 - Deep Learning Concepts Continued**

1. Convolutional Networks
2. Recurrent Nets
3. Autoencoders
4. Recursive Neural Tensor Nets
5. Deep Learning Use Cases

### • **Module 3 - Platforms for Deep Learning**

1. What is a Deep Learning Platform?
2. H2O.ai
3. Dato GraphLab

- **Module 4 - Deep Learning Software Libraries**

- What is a Deep Learning Library?
- Theano
- Deeplearning4j
- Torch
- Caffe