CLOUD x LAB

COURSE ON DEEP LEARNING

COURSE DESIGN

High-quality videos, slides, hands-on examples, quizzes, automated assessments, case studies, and real-world projects.

COURSE MATERIAL

Lifetime access to cutting-edge self-paced learning content.

LAB

90 Days of CloudxLab access for hands-on practice.

SUPPORT

Email support to answer your queries and we've also launched Discussions - a Q&A site for Artificial Intelligence, Machine Learning, Deep Learning, Big Data & Data Science professionals.

CERTIFICATE

Earn certificate in Machine Learning and Deep Learning

LIVE SESSIONS

45+ hours of live online instructor-led training. Classes will be conducted every Saturday & Sunday between (7 AM - 10 AM Indian Standard Time) or (6:30 PM - 9:30 PM Pacific Time).

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COURSE ON DEEP LEARNING - COURSE SYLLABUS

COURSE ON DEEP LEARNING

1. Introduction to Deep Learning

    - Deep Learning Applications,
    - Artificial Neural Network,
    - TensorFlow Demo,
    - Deep Learning Frameworks

2. Up and Running with TensorFlow

    - Installation,
    - Creating Your First Graph and Running It in a Session,
    - Managing Graphs,
    - Lifecycle of a Node Value,
    - Linear Regression with TensorFlow,
    - Implementing Gradient Descent,
    - Feeding Data to the Training Algorithm,
    - Saving and Restoring Models,
    - Visualizing the Graph and Training Curves Using TensorBoard,
    - Name Scopes, Modularity,
    - Sharing Variables

3. Introduction to Artificial Neural Networks

    - From Biological to Artificial Neurons,
    - Training an MLP with TensorFlow's High-Level API,
    - Training a DNN Using Plain TensorFlow,
    - Fine-Tuning Neural Network Hyperparameters

4. Training Deep Neural Nets

    - Vanishing / Exploding Gradients Problems,
    - Reusing Pretrained Layers,
    - Faster Optimizers,
    - Avoiding Overfitting Through Regularization,
    - Practical Guidelines

5. Convolutional Neural Networks

    - The Architecture of the Visual Cortex,
    - Convolutional Layer,
    - Pooling Layer,
    - CNN Architectures

6. Recurrent Neural Networks

    - Recurrent Neurons,
    - Basic RNNs in TensorFlow,
    - Training RNNs,
    - Deep RNNs,
    - LSTM Cell,
    - GRU Cell,
    - Natural Language Processing

7. Autoencoders

    - Efficient Data Representations,
    - Performing PCA with an Undercomplete Linear Autoencoder,
    - Stacked Autoencoders,
    - Unsupervised Pretraining Using Stacked Autoencoders,
    - Denoising Autoencoders,
    - Sparse Autoencoders,
    - Variational Autoencoders

8. Reinforcement Learning

    - Learning to Optimize Rewards,
    - Policy Search,
    - Introduction to OpenAI Gym,
    - Neural Network Policies,
    - Evaluating Actions: The Credit Assignment Problem,
    - Policy Gradients,
    - Markov Decision Processes,
    - Temporal Difference Learning and Q-Learning,
    - Learning to Play Ms. Pac-Man Using Deep Q-Learning

Projects

1. Build cats classifier using neural network
2. Classify large images using Inception v3
3. Classify clothes using TensorFlow
4. Predict the hourly rain gauge total

Click Here to Enroll Now!!

Please feel free to email your queries to reachus@cloudxlab.com

Regards,
The CloudxLab Team