

ARTIFICIAL INTELLIGENCE COURSE AND TRAINING (USING TENSORFLOW)

About IntelliPaat

IntelliPaat is a global online professional training provider. We are offering some of the most updated, industry-designed certification training programs in the domains of Big Data, Data Science & AI, Business Intelligence, Cloud, Blockchain, Database, Programming, Testing, SAP and 150 more technologies.

We help professionals make the right career decisions, choose the trainers with over a decade of industry experience, provide extensive hands-on projects, rigorously evaluate learner progress and offer industry-recognized certifications. We also assist corporate clients to upskill their workforce and keep them in sync with the changing technology and digital landscape.

About The Course

Intellipaate Artificial Intelligence course online certification using TensorFlow is an industry-designed certification training to master Convolutional Neural Network (CNN), Perceptron in CNN, TensorFlow, TensorFlow-Code, graph visualization, transfer learning, recurrent neural networks, deep learning libraries, Keras & TFLearn API, GPU in deep learning, backpropagation, and hyperparameters through hands-on projects. Learn AI with this Artificial Intelligence course online using tensorflow.

 Instructor Led Training 32 Hrs of highly interactive instructor led training	 Self-Paced Training 24 Hrs of Self-Paced sessions with Lifetime access	 Exercise and project work 48 Hrs of real-time projects after every module	 Lifetime Access Lifetime access and free upgrade to latest version
 24x7 Support Lifetime 24*7 technical support and query resolution	 Get Certified Get global industry recognized certifications	 Job Assistance Job assistance through 80+ corporate tie-ups	 Flexi Scheduling Attend multiple batches for lifetime & stay updated.

Why take this Course?

Artificial Intelligence today is taking over each and every industry domain. Machine Learning and especially Deep Learning are the most important aspects of Artificial Intelligence that are being

deployed everywhere from search engines to online movie recommendations. Taking the IntelliPaat Deep Learning training can help professionals to build a solid career in a rising technology domain and get the best jobs in top organizations.

Online Course Content

1. Introduction to Deep Learning & Neural Networks
2. Multi-layered Neural Networks
3. Training of neural networks
4. Deep Learning Libraries
5. Keras API
6. TFLearn API for TensorFlow
7. DNN: Deep Neural Networks
8. CNN: Convolutional Neural Networks
9. RNN: Recurrent Neural Networks
10. GPU in Deep Learning
11. Autoencoders & Restricted Boltzmann Machine (RBM)
12. Deep Learning applications
13. Chatbots

Introduction to Deep Learning & Neural Networks

- ❖ The domain of machine learning and its implications to the artificial intelligence sector, the advantages of machine learning over other conventional methodologies
- ❖ Introduction to Deep Learning within machine learning, how it differs from all others methods of machine learning
- ❖ Training the system with training data, supervised and unsupervised learning, classification and regression supervised learning, clustering and association unsupervised learning
- ❖ The algorithms used in these types of learning. Introduction to AI
- ❖ Introduction to Neural Networks, Supervised Learning with Neural Networks
- ❖ Concept of Machine Learning, Basics of statistics, probability distributions, hypothesis testing, Hidden Markov Model

Multi-layered Neural Networks

- ❖ Introduction to Multi Layer Network, Concept of Deep neural networks, Regularization. Multi-layer perceptron, capacity and overfitting, neural network hyperparameters, logic gates
- ❖ The various activation functions in neural networks like Sigmoid, ReLu and Softmax, hyperbolic functions. Backpropagation, convergence, forward propagation, overfitting, hyperparameters

Training of neural networks

- ❖ The various techniques used in training of artificial neural networks, gradient descent rule, perceptron learning rule, tuning learning rate, stochastic process
- ❖ Optimization techniques, regularization techniques, regression techniques Lasso L1, Ridge L2, vanishing gradients, transfer learning
- ❖ Unsupervised pre-training, Xavier initialization, vanishing gradients

Deep Learning Libraries

- ❖ How Deep Learning Works, Activation Functions, Illustrate Perceptron, Training a Perceptron, Important Parameters of Perceptron,
- ❖ Multi-layer Perceptron What is Tensorflow, Introduction to TensorFlow open source software library for designing, building and training Deep Learning models, Python Library behind TensorFlow
- ❖ Tensor Processing Unit (TPU) programmable AI accelerator by Google, Tensorflow code-basics, Graph Visualization, Constants, Placeholders, Variables, Step by Step – Use-Case Implementation, Keras

Keras API

- ❖ Keras high-level neural network for working on top of TensorFlow, defining complex multi-output models, composing models using Keras
- ❖ Sequential and functional composition, batch normalization, deploying Keras with TensorBoard, neural network training process customization

TFLearn API for TensorFlow

- ❖ Implementing neural networks using TFLearn API, defining and composing models using TFLearn, deploying TensorBoard with TFLearn

DNN: Deep Neural Networks

- ❖ Mapping the human mind with Deep Neural Networks, the various building blocks of Artificial Neural Networks, the architecture of DNN, its building blocks, the concept of reinforcement learning in DNN, the various parameters, layers, activation functions and optimization algorithms in DNN

CNN: Convolutional Neural Networks

- ❖ What is a Convolutional Neural Network, understanding the architecture of CNN, use cases of CNN, what is a pooling layer
- ❖ How to visualize using CNN, how to fine-tune a Convolutional Neural Network
- ❖ What is Transfer Learning and understanding Recurrent Neural Networks, feature maps, Kernel filter, pooling, deploying convolutional neural network in TensorFlow

RNN: Recurrent Neural Networks

- ❖ Intro to RNN Model, Application use cases of RNN, Modelling sequences, Training RNNs with Backpropagation, Long Short-Term memory (LSTM)
- ❖ Recursive Neural Tensor Network Theory, Recurrent Neural Network Model
- ❖ Basic RNN cell, unfolded RNN, training of RNN, dynamic RNN, time-series predictions

GPU in Deep Learning

- ❖ Introduction to GPUs and how they differ from CPUs, the importance of GPUs in training Deep Learning Networks
- ❖ The forward pass and backward pass training technique, the GPU constituent with simpler core and concurrent hardware

Autoencoders & Restricted Boltzmann Machine (RBM)

- ❖ Introduction to RBM and autoencoders, deploying it for deep neural networks, collaborative filtering using RBM
- ❖ Features of autoencoders, applications of autoencoders

Deep Learning applications

- ❖ Image Processing
- ❖ Natural Language Processing
- ❖ Speech Recognition
- ❖ Video Analytics

Chatbots

- ❖ IBM Watson
- ❖ Google API.AI
- ❖ Microsoft's Luis
- ❖ Amazon Lex
- ❖ Generative
- ❖ Open-Close Domain Bots
- ❖ Sequence to Sequence model (LSTM)

Project Works

Project 1 : Image recognition with TensorFlow

Industry : Internet Search

Problem Statement : Building a robust deep learning model to recognize the right object on the internet depending on the user search for the image

Description : In this project you will learn how to build Convolutional Neural Network using Google TensorFlow. You will do visualization of images using training, providing input images, losses and distributions of activations and gradients. You will learn to break each image into manageable tiles and input it to the Convolutional Neural Network for the desired result

Highlights :

- ✓ Constructing Convolutional Neural Network using TensorFlow
- ✓ Convolutional, Dense & Pooling layers of CNNs
- ✓ Filtering the images based on user queries

Project 2 : Building an AI-based chatbot

Industry : Ecommerce

Description : This project involves building the chatbots using Artificial Intelligence and Google TensorFlow.

Problem Statement : Understanding the customer needs and offering the right services through Artificial Intelligence chatbot. You will learn how to create the right artificial neural network with the right amount of layers to ensure the customer queries are comprehensible to the Artificial Intelligence chatbot. This will help to understand natural language processing, understanding beyond keywords, data parsing and providing the right solutions.

Highlights :

- ✓ Breaking user queries into components
- ✓ Building neural networks with TensorFlow
- ✓ Natural language processing

Project 3 : Ecommerce product recommendation

Industry : Ecommerce

Problem Statement : Recommending the right projects to customers by artificial intelligence

Description : This project involves working with recommender systems to provide the right product recommendation to customers with TensorFlow. You will learn how to use Artificial Intelligence to check for user past buying habits, find out what are the products that go hand-in-hand, and recommend the best products for a particular product.

Highlights :

- ✓ Building neural networks with TensorFlow
- ✓ Looking at huge amounts of data & gaining insights
- ✓ Building recommendation engine with TensorFlow Graph

Job Assistance Program

Intellipaat is offering job assistance to all the learners who have completed the training. You should get a minimum of 60% marks in the qualifying exam to avail job assistance. Intellipaat has exclusive tie-ups with over 80 MNCs for placements.



Successfully finish the training

Get your resume updated

Start receiving interview calls

Intellipaat Alumni Working in Top Companies



Shifali Sharma 

BI Consultant at Concentrix Technologies India Pvt Ltd

I have been certified from intellipaat on Power BI. I was just amazed at the quality of the video and content provided in training. It was beautifully segregated into logical blocks assisting learners grasp the subject in the best possible way. Good experience.



Harry Poul 

Sr. Business Intelligence Analyst

I liked the dedication of the Intellipaat support team when it came to resolving my queries regardless of the time of the day. Hats off to team Intellipaat!



Gokhan Dedeoglu 

Database/BI Architect

My Intellipaat training in Power BI was a very good career decision. It helped me upskill and master one of the top business intelligence tool and Intellipaat is the key to my success.

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Our Clients

ERICSSON



SONY



+80 Corporates

Frequently Asked Questions

Q 1. What is the criterion for availing the IntelliPaat job assistance program?

Ans. All IntelliPaat learners who have successfully completed the training post April 2017 are directly eligible for the IntelliPaat job assistance program.

Q 2. Which are the companies that I can get placed in?

Ans. We have exclusive tie-ups with MNCs like Ericsson, Cisco, Cognizant, Sony, Mu Sigma, Saint-Gobain, Standard Chartered, TCS, Genpact, Hexaware, and more. So you have the opportunity to get placed in these top global companies.

Q 3. Do I need to have prior industry experience for getting an interview call?

Ans. There is no need to have any prior industry experience for getting an interview call. In fact, the successful completion of the IntelliPaat certification training is equivalent to six months of industry experience. This is definitely an added advantage when you are attending an interview.

Q 4. If I don't get a job in the first attempt, can I get another chance?

Ans. Definitely, yes. Your resume will be in our database and we will circulate it to our MNC partners until you get a job. So there is no upper limit to the number of job interviews you can attend.

Q 5. Does IntelliPaat guarantee a job through its job assistance program?

Ans. IntelliPaat does not guarantee any job through the job assistance program. However, we will definitely offer you full assistance by circulating your resume among our affiliate partners.