

Prutor@IITK LEARN THE WAY JIT'S LEARN TO CODE



Artificial Intelligence + Machine Learning

Join the certified courses from Prutor.AI, IIT Kanpur this Summer, and get the opportunity to utilize your summer vacation by learning new technology at the comfort of your home.

This online live training program is designed in such a way that it makes learning by building projects super easy for you.

For applying for a job Artificial Intelligence + Machine Learning certificate is considered one of the most needed certifications.

Training Highlights

- Learn from home
- 4 weeks of training Certificate of Training Doubt clearing
 - Syllabus
 - 2 weeks of project work

Give the final quiz

Get a certificate in AIML

How will your training work?

Attend Online Classes

Online Live Classes

Faculty Support

- Learn with Hands-on practical •
- Do the project work

What projects you can build?

- **Titanic Survival Prediction**
- Fake News Detection
- Heart Attack Detection
- **Brain Tumor Detection**



Titanic Survival Prediction



Course Curriculum

- Find out where Machine Learning is applied in **Technology and Science**
- Supervised Learning
- Unsupervised Learning
- Data Analysis Packages
- NumPv
- SciPv
- Matplotlib
- Introduction to Machine Learning
- **History and Evolution**
- Artificial Intelligence Evolution
- Pandas
- Slkearn
- Regression
- Classification
- Generalization, Overfitting, and Underfitting
- Classification
- Understand how continuous supervised learning is different from discrete learning.
- Code a Linear Regression in Python with scikit-learn.
- Understand different error metrics such as SSE, and R Squared in the context of Linear Regressions.
- k-Nearest Neighbor
- Linear models
- Naive Bayes Classifiers
- Decision trees
- Support Vector Machines
- Challenges in unsupervised learning
- Preprocessing and Scaling
- Applying data transformations
- Scaling training and test data the same way
- **Principal Component** Analysis (PCA)
- A revolution in Artificial Intelligence



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- Advantage of Deep Learning over Machine learning
- How Deep Learning Works?
- Limitations of Machine Learning
- What is Deep Learning?
- Activation Functions
- Training a Perceptron
- TensorFlow code-basics
- Tensorflow data types
- Tensorflow methods
- Introduction to Neural Networks
- Neural Network Architecture
- Linear Regression example revisited
- The Neuron
- **Neural Network Layers**
- The MNIST Dataset
- Coding MNIST NN
- Understand the limitations of a Single Perceptron
- Deepening the network **Convolutional Neural**
- Networks ConvNet Architecture
- Overfitting and Regularization
- Max Pooling and ReLU activations
- Dropout
- Strides and Zero Padding
 - Coding Deep ConvNets demo Visualizing NN using
- Tensorflow Tensorboard
- How to compose Models in Keras
- Sequential Composition
- **Functional Composition**
- Predefined Neural Network Lavers







