



Skill India
कौशल भारत - कुशल भारत



MACHINE LEARNING COURSE



ANSH InfoTech Affiliation with Skill India



Skill India
कौशल भारत - कुशल भारत

Career in Machine Learning



Why Build a Career in Machine Learning?



Demand is So High For Machine Learning

The Global Machine Learning (ML) Market Size Was Valued At USD 15.44 Billion In 2021. The Market Is Expected To Grow From USD 21.17 Billion In 2022 To USD 209.91 Billion By 2030.



8+ Job Roles & Career Paths

Machine Learning (ML) offers a wide range of job roles and diverse career paths like Machine Learning Engineer/Developer, Data Scientist, Research Scientist, AI/ML Consultant, Data Engineer, and many more.



6.2 Lakh Per Annum Average Salary

Machine Learning Engineer salary in India ranges between ₹ 3.0 Lakhs to ₹ 21.0 Lakhs with an average annual salary of ₹ 6.2 Lakhs. Salary estimates are based on 4.5k latest salaries received from Machine Learning Engineers.



Guaranteed Growth in Job and Career

By acquiring the right skills, you can be on your way to building a fast-growing career in the field of Machine Learning.



Work Remotely for International Companies

Numerous brands and organizations around the world hire Machine Learning professionals for remote work and offer a lucrative package.



Opportunities in Both Public & Private Sectors

As a Machine Learning professional, you have the opportunities to work in both public and private sector organizations of all sizes.

Who Can Learn **MACHINE LEARNING?**

Machine Learning becomes easier for you with proper guidance & advanced projects by ANSH InfoTech's machine learning's expert trainers. You can acquire this skill if you are:



College Student

Start shaping your career right from college time by learning in demand machine learning skills.



Graduate

Time for you to upskill, prepare yourself for a bright future, and kickstart a career in machine learning.



College Dropout

Not sure which career is right for you? Not finding any jobs? Learn machine learning with us to instantly land your first job.



Looking to Switch Career

Not satisfied with your current job profile? Switch to machine learning, one of the most demanded and highly-paid skills.

A Brief About ANSH InfoTech

India's Most Trusted IT Training Institute

Ansh InfoTech is a leading IT training and software development company based in Ludhiana, Punjab, India. Since 2014, Ansh InfoTech has trained over 50k students and provided internship opportunities to over 4,500 candidates.

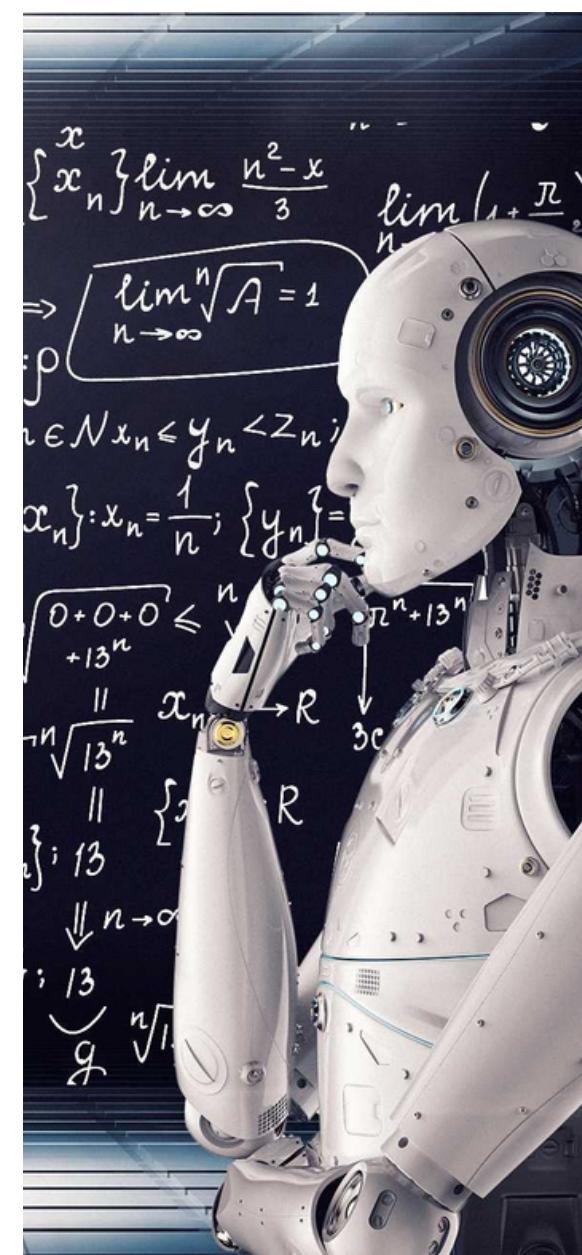
Additionally, Ansh InfoTech is one of the fastest growing tech-enabled company in Ludhiana.

With its expert team of trainers in various technical fields like Ethical Hacking, Web Development, Data Science, Digital Marketing, and many more. Company has helped thousands of students from India and other Asian countries acquire new skills and explore high-paying career opportunities.

Our learners work for top brands, companies and unicorns across India and around the world.



Why Learn **Machine** Learning with **ANSH** **InfoTech** Only?





Trusted by 50k Learners

We are the #1 preference of more than 50k learners in India and Asian countries. Our training quality and support system intrigue learners.



Completely Practical-Oriented

Machine Learning is a skill that requires immense practice. For that, we offer 100% practical training with regular assignments, assessments, and projects.



Online and Offline Batches

Machine Learning is a skill that requires immense practice. For that, we offer 100% practical training with regular assignments, assessments, and projects.



Comprehensive Curriculum

Machine Learning course by ANSH InfoTech includes India's most comprehensive curriculum, covering all breadths and depths in detail & practically.



Job Assistance

On course completion, we assist you with job interviews and resume building. Next, your interviews are arranged with top companies to help you land the job easily.



Expert Trainers

You will learn machine learning from expert trainers having 10+ years of experience in the field. We ensure high-quality training always.



Industry-Recognized Certification

The certificate you receive on course completion is valid nationally and internationally. You can easily share it, add it to your resume, and explore great opportunities.



Hands-On Live Projects

You will apply all the practices on real websites (no dummies), do everything on your own, and make use of premium tools.



MACHINE LEARNING

Course Curriculum

Master all Concepts of Machine Learning!

Module 01

INTRODUCTION TO PYTHON

- Functions and If – Else Loops Statement
- Control Flow Statements
- Lists & List Comprehension
- Sets, Dictionaries & Dictionary comprehension
- Working with classes
- Inheritance
- Polymorphism

Module 02

INTRODUCTION TO MACHINE LEARNING & TYPES OF ML

- Overview of machine learning concepts and applications
- Types of machine learning: supervised, unsupervised, and reinforcement learning
- Machine learning workflow and model evaluation

Module 03

DATA PRE-PROCESSING FOR MACHINE LEARNING

- Data cleaning: handling missing values, outliers, and inconsistent data
- Feature selection and feature engineering techniques
- Data scaling, normalization, and transformation

Module 04

INTRODUCTION TO EDA

- Overview of data preprocessing and EDA concepts
- Importance of data preprocessing and EDA in the data analysis pipeline
- Key steps involved in data preprocessing and EDA

Module 05

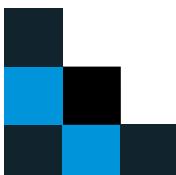
EXPLORATORY DATA ANALYSIS (EDA) TECHNIQUES

- Descriptive statistics: measures of central tendency and dispersion
- Univariate analysis: histograms, box plots, and summary statistics
- Bivariate analysis: scatter plots, correlation, and covariance analysis
- Multivariate analysis: heatmaps, pair plots, and dimensionality reduction techniques

Module 06

DATA COLLECTION AND CLEANING

- Data collection methods and sources
- Handling missing data: identification and imputation techniques
- Dealing with outliers and noisy data
- Data normalization and scaling techniques



Course Curriculum

Module 07

DATA VISUALIZATION

- Introduction to data visualization libraries (e.g., Matplotlib, Seaborn)
- Creating various types of plots: line plots, bar plots, pie charts, etc.
- Customizing plot aesthetics: labels, titles, colors, and styles
- Advanced visualization techniques: stacked plots, grouped plots, etc.

Module 08

FEATURE ENGINEERING

- Understanding feature types: numerical, categorical, and textual data
- Handling categorical variables: one-hot encoding, label encoding, and ordinal encoding
- Feature scaling and transformation: normalization, standardization, and log transformation
- Feature extraction: PCA (Principal Component Analysis), LDA (Linear Discriminant Analysis), etc.

Module 09

HANDLING TIME SERIES DATA

- Time series concepts: trends, seasonality, and cyclic patterns
- Time series decomposition: trend, seasonal, and residual components
- Rolling statistics: moving averages, rolling windows, and exponential smoothing
- Time series visualization: line plots, seasonality plots, and autocorrelation plots

Module 10

HANDLING TEXT DATA

- Text preprocessing techniques: tokenization, stop word removal, and stemming
- Bag-of-words representation and TF-IDF (Term Frequency-Inverse Document Frequency)
- Text visualization techniques: word clouds, bar plots, and heatmaps
- Sentiment analysis: sentiment scoring and visualization

Module 11

ADVANCED DATA PREPROCESSING TECHNIQUES

- Handling skewed data: log transformation, power transformation, and box-cox transformation
- Handling missing data: advanced imputation methods (e.g., k-nearest neighbors, regression)
- Dealing with high-dimensional data: feature selection and dimensionality reduction techniques
- Handling imbalanced datasets: oversampling, undersampling, and SMOTE (Synthetic Minority Over-sampling Technique)



Course Curriculum

Module 12

CASE STUDIES AND APPLICATIONS

- Applying preprocessing and EDA techniques to real-world datasets
- Hands-on exercises and projects covering various domains (e.g., finance, healthcare, marketing)
- Interpreting and communicating insights from the analysis results
- Best practices for documentation and reproducibility of analysis

Module 13

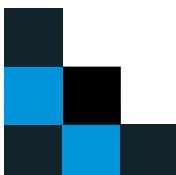
TOOLS AND LIBRARIES

- Introduction to Python libraries for preprocessing and EDA (e.g., Pandas, NumPy, Matplotlib, Seaborn)
- Introduction to specialized libraries for specific tasks (e.g., NLTK for text processing, scikit-learn for machine learning)

Module 14

INTRODUCTION TO SUPERVISED LEARNING

- Overview of supervised learning and its applications
- Difference between features, labels, and target variables
- Training and testing data split for model evaluation



Module 15

LINEAR REGRESSION

- Simple linear regression with one input feature
- Multiple linear regression with multiple input features
- Model evaluation metrics: mean squared error, R-squared

Module 16

LOGISTIC REGRESSION

- Binary logistic regression for classification problems
- Multinomial logistic regression for multi-class classification
- Model interpretation and decision boundaries

Module 17

DECISION TREES AND RANDOM FORESTS

- Basics of decision trees and tree-based modeling
- Ensemble learning with random forests
- Feature importance and tree visualization

Module 18

SUPPORT VECTOR MACHINES (SVM)

- Maximum margin classification with linear SVM
- Non-linear classification with kernel SVM
- SVM hyperparameter tuning and kernel selection

Course Curriculum

Module 19

K-NEAREST NEIGHBORS (K-NN)

- Distance metrics for k-NN classification and regression
- Choosing the optimal value of k
- Pros and cons of k-NN algorithm

Module 20

NAIVE BAYES CLASSIFIERS

- Introduction to Bayes' theorem and conditional probability
- Naive Bayes assumptions and classifier formulation
- Application to text classification and spam filtering

Module 21

EVALUATION METRICS AND TECHNIQUES

- Confusion matrix, accuracy, precision, recall, F1 score
- Receiver Operating Characteristic (ROC) curves
- Cross-validation techniques: k-fold, stratified, and leave-one-out

Module 22

OVERRFITTING AND REGULARIZATION

- Bias-variance tradeoff and model complexity
- Regularization techniques: L1 and L2 regularization
- Validation curves and learning curves for model assessment

Module 23

MODEL SELECTION AND TUNING

- Grid search and random search for hyperparameter tuning
- Model selection based on performance metrics
- Pipelines and automated model selection techniques

Module 24

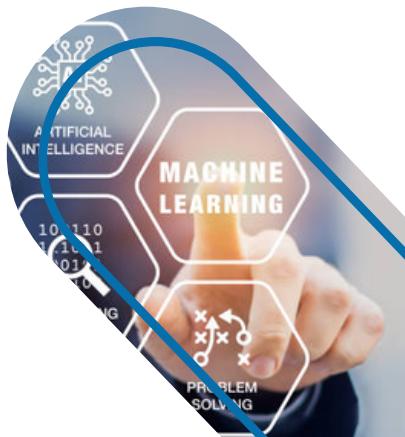
ENSEMBLE LEARNING

- Bagging and bootstrapping techniques
- Boosting algorithms: AdaBoost, Gradient Boosting
- Stacking models and model combination strategies

Module 25

HANDLING IMBALANCED CLASSES

- Techniques for handling imbalanced datasets
- Oversampling and undersampling methods
- Evaluation metrics for imbalanced classification



Job/Placement Assistance

Once you complete the Machine Learning Course, you will get advanced placement assistance to help you prepare for the job. We will evaluate your skills, prepare you for the interview, and arrange interviews with top companies.

- **Interview Preparation and Live Practice**
- **Appealing Resume Building**
- **Conducting Interviews at Various Companies**
- **Internship Opportunities**
- **Getting High-Paying Freelance Projects**

Students We've Trained Work at Renowned Companies,
Startups, and Brands



Our Students Speak for Us!



**Siddhart
Bhasil**

"I did not have knowledge of Machine Learning before enroing in this course. However, everything was taught from scratch. Initially, I thought I can't do this. But the way of teaching and content is really simple and great!"



**Stuti
Kumari**

"This is simply the best Machine Learning course. Teachers did a great job and put his heart into teaching all concepts of the course. Whenever I had doubts, they was eager to answer and helped me learn easily. Highly recommended."



**Urvashi
Mishra**

" I'm glad I made the decision to take this course in ANSH InfoTech. Can't appreciate it enough. I missed a few live classes but they provided me the recording and also cleared my doubts in the next classes."



**Sandeep
Kumar**

"The trainer here makes the content easy to learn and answers all the questions during the classes. I learned a lot of important concepts which looked so complex to me when I started. I recommend this course to any one who wants to learn Machine Learning."



**Ravi
Prakash**

"Thank you ANSH InfoTech. I really learned a lot during the entire Machine Learning training. The practicals, exercises, and projects were really good. I applied for a few jobs in the Machine Learning field and finally got placed with a good package."



**Ajay
Gupta**

"I would like to thank the trainer and ANSH InfoTech for the enhanced training provided during the entire course. The trainer has brilliant knowledge. The course content covers beginner to pro. Also, teachers here are good motivators and friendly."

CERTIFICATE OF ANSH INFOTECH AFFILIATION WITH SKILL INDIA



Certificate of Affiliation



Skill India
कौशल भारत - कुशल भारत

This is to certify that

ANSH INFOTECH (16217)

is an **Authorised Training Center of**
National Skill Qualification Framework (NSQF)



Scan Barcode with your Mobile Phone
or App for verification of the Certificate

Date of Issue : 10 September, 2023
Valid Upto: 09 September, 2025

Signing Authority
An Approved Training Partner of
National Skill Qualification Framework

STUDENT CERTIFICATE



CERTIFICATE

This is to certify that

ARADHYA MALHOTRA

Son/ Daughter of **JATINDER KUMAR** Candidate ID : **CAN_26645166**

has successfully completed training in

"DIPLOMA IN DATA ANALYTICS AND MACHINE LEARNING" Course

conforming to National Skill Qualification Framework-Level 5

with Grade A

from **ANSH INFOTECH**

at **LUDHIANA, PUNJAB**

Date of Issuance : **2023-10-20**



Scan Barcode with your Mobile Phone
or App for verification of the Certificate

Signing Authority

An Approved Training Partner of
National Skill Qualification Framework

Events & Workshops

at ANSH InfoTech



WORKSHOPS







PLACEMENT DRIVE AT ANSH InfoTech



AWARDING STAR PERFORMERS





Take Your Career's Most Important Step Today

Towards Building a Thriving Career in **Machine Learning!**



■ **Course Duration:** 6 Months

Call Now for more info : +91 94171-68347 / +91 8427-899400

Contacts Us:

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