

**MACHINE
LEARNING**



**ROLASOFT PROFESSIONAL COMPUTER & IT
COURSES VERSION 2.0 LATEST**

Diploma in Certified Machine Learning

*Become a job-ready Machine Learning in 6
months!*



Benefits of Studying Diploma in Machine Learning with RolaSoft

✓ 1. Industry-Relevant Curriculum

Stay ahead with a syllabus designed by industry experts, focused on real-world applications of machine learning.

✓ 2. Hands-On Training

Learn by doing — build real-time projects, and gain practical experience.

✓ 3. Experienced Instructors

Gain insights from certified professionals and senior software engineers with years of teaching and industry experience.

✓ 4. Placement Assistance

Access job support services including resume building, mock interviews, and direct placement opportunities with partner companies.

✓ 5. Flexible Learning Modes

Choose between: **Online**, **Offline (at our center)**, or **Hybrid Classes**

Benefits of Studying Diploma in Machine Learning with RolaSoft

✓ 6. Mini & Major Projects

Work on individual and group projects to strengthen your portfolio and impress future employers.

✓ 7. Certification Upon Completion

Earn a **Diploma Certificate** from **RolaSoft Technologies**, recognized by IT recruiters and employers.

✓ 8. Small Batch Size

Personalized attention and better interaction in small groups for an enhanced learning experience.

✓ 9. Affordable Fees & Installment Plans

Top-tier training at a reasonable cost, with flexible payment options.

✓ 10. Career-Oriented Skills You'll Gain at RolaSoft Technologies

RolaSoft ensures you're job-ready with the right tech stack and practical knowledge.

Diploma in Machine Learning Course Details

- ✓ **Duration**
Six (6) Months
- ✓ **Schedule**
Weekdays / Weekends
- ✓ **Learning Modes**
Online, Offline (at our center), or Hybrid Classes
- ✓ **Start Date**
New batches start every month — enroll now!
- ✓ **Eligibility**
No prior experience required

Machine Learning Prerequisites

- ✓ Basic knowledge of mathematics and logical reasoning
- ✓ Basic Python programming skills
- ✓ Understanding of high school-level math and statistics
- ✓ Familiarity with basic linear algebra & probability is a plus

Diploma in Machine Learning – Program Details

Program Overview

This comprehensive **Six-Month Machine Learning Course** is tailored for students, professionals, and tech enthusiasts aiming to enter the fast-growing field of machine learning and data-driven AI solutions. The course emphasizes both **theoretical understanding** and **practical implementation** of ML algorithms and frameworks, preparing participants to solve real-world problems through data science.

The program progresses from core concepts to advanced topics, including supervised and unsupervised learning, deep learning, data preprocessing, and model deployment.

Diploma in Machine Learning Course Curriculum

Month 1: Introduction to Machine Learning & Python for Data Science

- ✓ What is AI, ML, and Deep Learning?
- ✓ Categories of Machine Learning
- ✓ Applications of ML in various industries
- ✓ Python essentials: data types, functions, control statements, OOP
- ✓ Data analysis libraries: NumPy, Pandas
- ✓ Visualization libraries: Matplotlib, Seaborn
- ✓ Setting up Jupyter Notebook and Google Colab
- ✓ **Mini Project:** Exploratory Data Analysis (EDA) on a public dataset

Diploma in Machine Learning Course Curriculum

Month 2: Data Preparation & Exploratory Data Analysis (EDA)

- ✓ Understanding and handling various data types
- ✓ Dealing with missing values, outliers, and duplicates
- ✓ Data cleaning and transformation techniques
- ✓ Encoding categorical variables
- ✓ Scaling and normalization
- ✓ Data visualization for insights
- ✓ Feature engineering and feature selection
- ✓ **Mini Project:** Data preprocessing pipeline for a real-world dataset

Diploma in Machine Learning Course Curriculum

Month 3: Supervised Learning Algorithms

- ✓ Regression Techniques:
(Linear Regression, Ridge, Lasso, Polynomial Regression)
- ✓ Classification Techniques:
(Logistic Regression, KNN, Decision Trees, Random Forest, Naïve Bayes, SVM)
- ✓ Model evaluation: Accuracy, Confusion Matrix, Precision, Recall, F1-Score, ROC-AUC
- ✓ Cross-validation techniques
- ✓ Hyperparameter tuning with GridSearchCV
- ✓ **Mini Project:** Predictive model (e.g., house price prediction or disease detection)

Diploma in Machine Learning Course Curriculum

Month 4: Unsupervised Learning & Dimensionality Reduction

- ✓ Clustering Techniques:
(K-Means, Hierarchical, DBSCAN)
- ✓ Association Rule Learning: Apriori, Eclat
- ✓ Dimensionality Reduction: PCA, t-SNE
- ✓ Anomaly Detection methods
- ✓ **Mini Project:** Customer segmentation using clustering algorithms

Diploma in Machine Learning Course Curriculum

Month 5: Deep Learning & Neural Networks

- ✓ Introduction to Neural Networks
- ✓ Artificial Neural Networks (ANN)
- ✓ TensorFlow & Keras basics
- ✓ Building, training, and evaluating ANN models
- ✓ Convolutional Neural Networks (CNN) for image data
- ✓ Recurrent Neural Networks (RNN) basics for sequence data
- ✓ **Mini Project:** Image classification using CNN

Diploma in Machine Learning Course Curriculum

Month 6: Model Deployment & Capstone Project

- ✓ Model serialization: Pickle, Joblib
- ✓ Creating ML APIs with Flask / FastAPI
- ✓ Deploying models on cloud (Heroku / AWS)
- ✓ Introduction to Docker basics for ML apps
- ✓ **Capstone Project:** Complete end-to-end ML pipeline including data preparation, model building, evaluation, and deployment

Tools & Technologies Used

Tools & Technologies Used for **Machine Learning** Course are:

- ✓ **Languages:** Python
- ✓ **Libraries & Frameworks:** NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, TensorFlow, Keras
- ✓ **Deployment Tools:** Flask, FastAPI, Pickle, Joblib, Heroku, AWS
- ✓ **Visualization:** Matplotlib, Seaborn
- ✓ **Development Environment:** Jupyter Notebook, Google Colab, VS Code
- ✓ **Cloud & APIs:** Heroku, AWS (optional introduction)

Final Capstone Project (End of 6 Months)

Students will complete an **industry-level project** in **Machine Learning** :

- ✓ Complete end-to-end ML pipeline including data preparation, model building, evaluation, and deployment (Capstone Project)

Machine Learning Learning Outcomes

By the end of this course, students will be able to:

- ✓ Understand the fundamentals and types of machine learning.
- ✓ Perform data preprocessing and build effective EDA reports.
- ✓ Apply supervised and unsupervised learning algorithms to real-world datasets.
- ✓ Build, train, and evaluate neural networks using deep learning frameworks.
- ✓ Perform hyperparameter tuning and cross-validation.
- ✓ Serialize and deploy ML models using web frameworks and cloud platforms.
- ✓ Develop complete ML projects from data collection to deployment.

Certification Obtain

After completion of the program, the student will be awarded with a certificate:

Diploma in Certified Machine Learning

The program also prepares students for industry certifications such as:

- ✓ Deep Learning Specialization (Coursera)
- ✓ AWS Certified Machine Learning – Specialty
- ✓ Google Cloud Professional Machine Learning Engineer
- ✓ Microsoft Certified: Azure AI Engineer Associate
- ✓ Certified Machine Learning Specialist (CMSL)
- ✓ TensorFlow Developer Certificate

Machine Learning Career Opportunities

- ✓ Junior Machine Learning Engineer
- ✓ Junior Machine Learning Engineer
- ✓ Machine Learning Engineer
- ✓ Deep Learning Engineer
- ✓ Machine Learning Engineer
- ✓ ML Ops Engineer (Machine Learning Operations)
- ✓ Data Analyst (with ML exposure)
- ✓ Senior Machine Learning Engineer / Lead ML Engineer

Who Should Take This Machine Learning ?

Who Should Take This **Certified Machine Learning**?

- ✓ Software developers & engineers
- ✓ Data analysts & scientists
- ✓ Graduates in CS, IT, or Mathematics
- ✓ Professionals looking to transition into AI/ML roles

Rolasoft Technologies Services

Rolasoft Technologies – Services Offered

✓ **SOFTWARE DEVELOPMENT COMPANY**

(MOBILE APPLICATION, WEB APPLICATION, DESKTOP APPLICATION, CUSTOMIZED APPLICATION, E-COMMERCE WEBSITE)

✓ **PROFESSIONAL COMPUTER AND IT EDUCATION**

(TOP-UP PROGRAMS, DIPLOMA PROGRAMS, CERTIFICATE PROGRAMS, TECH @ SCHOOL, CORPORATE PROGRAMS, SIWES PROGRAMS, CUSTOMIZED PROGRAMS)

✓ **DIGITAL ADVERTISING AND BUSINESS BRANDING**

(SOCIAL MEDIA MARKETING, EMAIL MARKETING, CONTENT MARKETING, WEBSITE SEO, BRANDED CLOTHING, STICKERS AND TAG, CUSTOM BRANDING, AND MANY MORE)

✓ **INTERNATIONAL UNIVERSITY ADMISSION PROCESSING**

(AMERICA, UK, CANADA, EUROPE, AFRICA, AND MANY MORE)

Contact & Registration

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Enroll Today & Start Your Machine Learning Journey!
Shape your future with Machine Learning.