



KIDS & TEENS FREELANCING TRAINING INSTITUTE

Machine Learning Course Outline

Module 1: What is Machine Learning?

- What does "machine learning" mean in simple words?
- Real-life examples: recommendation systems, self-driving cars, smart assistants
- Difference between Artificial Intelligence and Machine Learning
- How computers “learn” from data

Module 2: Meet the Machine – How Computers Think

- What is data?
- How do machines make decisions using data?
- Simple activity: teaching a computer to recognize apples vs. bananas using pictures

Module 3: Types of Machine Learning (Made Simple)

- Supervised Learning (with fun examples)
- Unsupervised Learning (grouping things like candy types)
- Reinforcement Learning (like teaching a dog tricks!)

Module 4: Collecting and Cleaning Data

- What is a dataset?
- Where data comes from (games, websites, surveys)
- Cleaning messy data to help the computer understand it

Module 5: Training Your First Model (Visually)

- Using fun tools like Teachable Machine or Scratch ML
- Image recognition, pose detection, or voice commands
- Train → Test → Improve

Module 6: Real-World ML Examples for Kids

- How YouTube recommends videos

- How Google Translate works
- Games that learn how you play
- Facial recognition filters (like Snapchat)

Module 7: Build a Mini ML Project

- Choose a project (e.g., emotion detector, rock-paper-scissors AI, image sorter)
- Train with your own data (images or sounds)
- Test it with friends or classmates

Module 8: Ethics and the Future of ML

- Why fairness and safety matter in AI
- How machine learning could help the world
- Careers in AI & technology

Bonus Materials:

- Interactive worksheets & quizzes
- Links to kid-safe ML tools (like Google's Teachable Machine)
- Idea sheet for fun ML experiments at home
- Certificate of Completion