A complete guide to Machine Learning

Shaastra IIT Madras

Have you been meaning to learn Machine Learning since a long time but something always comes in your way? This workshop is for you. In just 6 hours, you will take the first step towards becoming a Machine Learning expert 😊

From predicting who would have survived the titanic disaster to Alexa playing your favourite songs, Machine Learning is all around us and now you can know how.

Is this workshop for you?

a) It terrifies me, I do not have a background in Machine learning but the topic seems very interesting
b) I have heard a lot about ML but I want to learn about its practical applications
c) I know a little bit about it but I would love to learn more

If you align with any of the above, this workshop is definitely for you, if you're an amateur or a novice or an expert.

Abstract:

The workshop is designed keeping in mind that many students find Machine Learning fascinating because of its immense applications, but they don't know where to start and how to strengthen their Machine Learning Skills. The workshop follows a guided project-based approach to make students gain hands-on experience of solving Machine Learning problems on their own. The workshop also talks about the available platforms and competitions students can leverage to become a Machine Learning expert.

At the end of the workshop, you will be able to

- Implement a Machine Learning Project in Python (Jupyter notebook)
- Pre-process data – Deal with Missing Values and Encoding
- Perform basic Exploratory Data Analysis
- Use different Regression and Classification Algorithms
- Ways to improve the accuracy of your basic model

Scared of what all of that means? Join the workshop and you'll know them all in a few hours.

Session 1:

2 guided projects – Based on Regression
Some examples: Health Insurance cost prediction, sales prediction, predicting cricket match scores

Session 2:

2 guided projects – Based on Classification (Binary & Multi-Class Classification)
Some examples: Fake news prediction, Attrition prediction, Ad popularity prediction

Prerequisites:

- Basic programming knowledge/understanding of Python (Beginner level)
- Jupyter notebook installed
    - Recommended – Install using conda which can be downloaded here: (https://www.anaconda.com/products/individual)
        - Once you download Anaconda – Go to Anaconda navigator and click on launch Jupyter.
    - Other alternatives: (https://jupyterlab.readthedocs.io/en/stable/getting_started/installation.html)
- Willingness to learn (must)