

# **REPORT ON VOCATIONAL TRAINING**

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on  
**Machine Learning A-Z™: Hands-On Python  
& R In Data Science**

**Under the Training Institute**

**“UDEMY”**

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## CERTIFICATE



Certificate no: UC-0190ee2c-ada9-4957-b5c9-fce8a557ca6  
Certificate url: [udemy/UC-0190ee2c-ada9-4957-b5c9-fce8a557ca6](https://www.udemy.com/certificate/UC-0190ee2c-ada9-4957-b5c9-fce8a557ca6)  
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CERTIFICATE OF COMPLETION

# Machine Learning A-Z™: Hands-On Python & R In Data Science

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Length 44.5 total hours

## **Module 1:- Machine Learning**

### **1.1 What is Machine Learning?**

Machine Learning is said as a subset of artificial intelligence that is mainly concerned with the development of algorithms which allow a computer to learn from the data and past experiences on their own. The term machine learning was first introduced by Arthur Samuel in 1959. We can define it in a summarized way as: Machine learning enables a machine to automatically learn from data, improve performance from experiences, and predict things without being explicitly programmed.

With the help of sample historical data, which is known as training data, machine learning algorithms build a mathematical model that helps in making predictions or decisions without being explicitly programmed. Machine learning brings computer science and statistics together for creating predictive models. Machine learning constructs or uses the algorithms that learn from historical data. The more we will provide the information, the higher will be the performance.

### **1.2 How does Machine Learning work?**

A Machine Learning system learns from historical data, builds the prediction models, and whenever it receives new data, predicts the output for it. The accuracy of predicted output depends upon the amount of data, as the huge amount of data helps to build a better model which predicts the output more accurately.

Suppose we have a complex problem, where we need to perform some predictions, so instead of writing a code for it, we just need to feed the data to generic algorithms, and with the help of these algorithms, machine builds the logic as per the data and predict the output. Machine learning has