**Hands-On Machine Learning with Scikit-Learn and TensorFlow Book Critique**

# **Introduction**

In **Hands-On Machine Learning with Scikit-Learn and TensorFlow,** A well-known author **Aurélien Géron** tries to give the best knowledge of Artificial intelligence and Machine learning. He is an ML consultant who leads the youtube video classification team from 2013 to 2016 This book is ideal for those people who love to learn and work with emerging technology as we know, the world is now AI and every manual work is now converted into a Machine so It's a masterpiece for machine learning enthusiasts and instead of writing toy version of the algorithm, you will use actual python frameworks. We will discuss **The Machine Learning Landscape,** the first chapter of this book.

# **Summary**

In this chapter, **Aurélien Géron** explains the basic concept and terminology of machine learning and how it can affect human beings. Machine learning is very helpful for complex situations especially when you have a large amount of data. Machine learning is not very helpful for understanding and solving a large number of problems but one minor mistake will destroy your whole application like choosing the wrong dataset or choosing the wrong machine learning model which ends with overfitting & underfit the model.

# **Critique**

The story begins with curiosity about some applications and their working by using Machine learning algorithms. So very first question that comes to your mind is why are you using machine learning? So one line answer is to solve human being problems and give a human being more comfortable and relaxation. Machine learning is very helpful for complex problems, Fluctuating environments and when you have a large amount of data.

The chapter further explains its four types (Supervised, unsupervised, semi-supervised and Reinforcement Learning). After that, we have seen the difference between Batch learning and online learning. In my point of view, Batch learning is best in which you have a fixed amount of available data because online learning data end with bad results due to system errors.

Although ML algorithms give you a lot of advantages, you face big problems and challenges too while using machine learning algorithms. Suppose you have a bad dataset with not well structured and has no labels. In that case, you have to work a lot while working with that dataset. Another disaster that happens is you have an insufficient amount of training data. well, In that case, your model will not learn the features and values properly and it shows bad results in the form of overfitting and underfitting the model If you are choosing the wrong machine learning algorithm with low accuracy and irrelevant features then the game is over. You always have to test and validate the data after training it so that you will check whether your model works well or not.

# **Conclusion**

To conclude this chapter, I must say that author describes the best and easiest way for every user to understand what exactly is machine learning and how it can be helpful for you to learn it and build your machine learning model. In this chapter, The author uses the easiest and real-time examples that help you to understand the core concepts of machine learning as well as he also explains how you can face challenges while building your machine learning model.

## **Word Counter Report**

