

Chapter 16 A Quick Review of Machine Learning for Big Data Processing

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Abstract:

The world's data is growing rapidly, and traditional tools for machine learning are becoming insufficient as we move towards distributed and real-time processing. Big data are now rapidly expanding in all science and engineering domains. While the potential of these massive data is undoubtedly significant, fully making sense of them requires new ways of thinking and novel learning techniques to address the various challenges. This paper presents machine learning, machine learning tools for big data, big data integration with machine learning techniques and research trends and challenges.

Keywords: Machine Learning, Big data, Volume, Variety and Velocity.

1. Introduction

Machine learning has found widespread implementations and applications in many different domains in our life. Machine learning is processes of understanding data through learn by examples or learn by data without being explicitly programmed. Machine learning is detachment of Artificial Intelligence and also part of data science. Machine learning deals with large datasets for feature extraction to process the data for further data analysis. Machine learning deals with labelled data and unlabelled data by using supervised and unsupervised learning algorithms. Supervised learning algorithms deals with labelled data by using classification algorithms. The main objective of supervised learning is to understand data through training dataset which