Chapter 14
Innovative Machine Learning Applications for green Finance

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ABSTRACT

This chapter explores the use of machine learning (ML) for recommended systems made for green finance in the financial sector. Green financing aims to promote environmental conscious investments and actions; thus, it is imperative to use cutting edge technology to enhance the decision -making processes. This chapter covers the integration of machine learning algorithms to evaluate large datasets, predict investment opportunities and recommend appropriate green financial solutions. Possible and serious problems when machine learning-based recommended systems

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are used for green finance. There is also talk of real-world rituals for governments and financial organizations. This study uses cutting edge technical innovations to promote sustainable credit.

INTRODUCTION

Due to the international initiative to reduce environmental change and promote environmental stability, the confluence of money and durability has recently attracted a lot of attention. The subset of durable money called "Green Finance" is related to the allocation of initiatives and the resources of the projects that will improve the environment. These include financial contributions to Energy-efficient construction, sustainable structural, renewable energy room and other green industries. Financial institutions are using cutting edge technology more frequently as machine learning (ML) because the need to address climate change becomes more pressing, so they force more to improve, to improve, assess and provide green financing options (Hansen & Borch, 2022).

In the field of artificial intelligence (AI), machine learning computers gives the ability to learn from data and make judgments or predictions without the need for clear programming. In the context of green finance, the machine learning algorithms are capable of highlighting the possibilities of investing in compatible with durability goals by analyzing the data, including the measurement of financial operations and environmental performance evaluation. These algorithms can get connections and trends that will miss human analysts, giving important information about the potential benefits and drawbacks of green investment opportunities(Lee et al., 2023).

In addition to standard financial analysis, machine learning is being applied in the field of green finance. Financial institutions can use IT complex recommendations to create algorithms that correspond to the risk tolerance, financial goals and investment options in accordance with environmental factors. ML algorithms can produce customized recommendations that maximize financial returns and environmental influence using historical hi -data and current market information. This skill facilitates the incorporation of stability issues in standard financial operations while also improving the efficiency of the decision making (Parisi & Manaog, 2023).

Recommended systems operated by Machine Learning (ML) in Green Finance Space help investors and financial institutions overcome many major obstacles. The difficulty in determining how the environment will affect is such a problem. Artificial intelligence (ML) algorithms are capable of evaluating environmental credentials of the project through the examination of variables, including carbon emissions, resource efficiency and adherence to global durability standards. This

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Honour Chika Nwagwu (2014). *International Journal of Conceptual Structures and Smart Applications (pp. 68-82).*
www.irma-international.org/article/visualising-inconsistency-and-incompleteness-in-rdf-gene-expression-data-using-fca/120235