



Personalized Marketing: Leveraging Machine Learning for Enhanced Customer Engagement

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I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality,
as a thesis for the degree of Master of Science.

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DECLARATION

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Sri Lanka Institute of Information Technology or to any other institution for assessment for any other purpose.

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ABSTRACT

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Consumers expect to get value for both their money and time hence there is always a need for organizations to look for other unique ways of satisfying customers. This paper aims to establish how machine learning enhances consumer interactions with personalized marketing strategies. Marketers can develop narrow target marketing strategies by feeding large amounts of data sets, whereby ML algorithms comprehensively capture the behavior, needs, and interactions of consumers. These targeted engagements increase conversion while at the same time enhancing ethyl, and client satisfaction, not to mention brand commitment.

In the context of personalized marketing, the role of some crucial machine learning methodologies such as recommendation engines, NLP, and predictive analytics are examined by the study. Furthermore, it examines the problems of ethical concern related to the security of data and users' privacy, and the role of big data to operate these algorithms. In this research, the author concentrates on the transformative role played by machine learning in the formulation of effective real-time marketing techniques that appeal to consumers, supported by both theoretical concepts and practical illustrations.

Much of this work aims to provide guidelines for firms that desire to enhance their approach to customer engagement through the adoption of machine learning technologies by comparing the risks and rewards associated with this strategy.

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