A MINI-PROJECT REPORT

ON

"Summarization & Sentiment Analysis of German Amazon Reviews"

BY

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Under the guidance of

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CERTIFICATE

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This is to certify that

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Have satisfactory completed this project entitled

"Summarization & Sentiment Analysis of German Amazon Reviews"

Towards the partial fulfilment of the

FINAL YEAR BACHELOR OF ENGINEERING IN (COMPUTER ENGINEERING)

as laid by University of Mumbai.

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Declaration

We wish to state that the work embodied in this project titled "Summarization & Sentiment Analysis of German Amazon Reviews" forms our own contribution to the work carried out under the guidance of "Guide Name" at the Rajiv Gandhi Institute of Technology.

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Abstract

The end of the previous decade led to a booming expansion of Amazon as a leading retail company. With the internet coverage reaching out to remote locations, the visits on such online retailers have increased exponentially. As a general tendency, people look at suggestions and feedback from the crowd to decide on whether to purchase commodities online. The paper utilizes German as its core language of analysis. This paper describes a technique to provide users with concise and accurate reviews of the product. It also provides a general outlook, which the prior customers have, of the product. The technique utilizes the classification of original and summarized reviews to training a model for review sentiment analysis using various Machine Learning models. The model, being one of a kind, utilizes data gathered by web scraping. The Encoder-Decoder LSTM model operates on this to create a summary of the reviews. The model performs abstractive summarization to retain the sense of statements. The same operations are performed on the original reviews. These two summaries are then fed to a sentiment analyzer to generate polarity of the reviews.

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