

MSBA 6460 Advanced AI for Business Applications
Project Proposal
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- Describe the topic of interest:

The topic I am interested in is online review sentiment analysis. To be more specific, the topic is about classifying online reviews into the right sentiments (positive, negative, and neutral).

- Motivation & How:

As an incoming Walmart data scientist, I am really interested in how to turn customer reviews into actionable insights. To Walmart, there are thousands of products and millions of customer reviews. In order to capture customer preference and improve product, it is crucial to capture customer's opinion.

For each product, to understand what are the reasons customers like or don't like the products, I need to at least first classify the reviews into three sentiments, positive, negative, and neutral. Hence, I believe the NLP skills we will learn in this course will help me accomplish this goal.

To be more specific, I can first use the text preprocessing skills taught in class to tidy the data into the right format. Then, I probably use both TF-IDF and sentiment score as features to create a Neural Network binary classification model.

- Dataset:

Twitter Sentiment Analysis

(<https://www.kaggle.com/datasets/jp797498e/twitter-entity-sentiment-analysis>)