

Github repo: <https://github.com/teohangxanh/5290/tree/master/Project>

## **CSCE 5290: Natural Language Processing**

### **Project proposal**

Project title: Sentiment analysis - Trip advisor reviews

Team member:

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1. Motivation:

- a. Saves costs and time / resources for hospitality business
- b. Human resources and time schedule
- c. Appropriate investment for improvement
- d. Importance of each department

2. Significance:

- a. Chooses a platform that can handle large data sets (20491 x 2) – Probably Pytorch

3. Objectives:

- a. We extract important information from reviews for hospitality businesses to look at and redistribute their sources appropriately
- b. They can improve their weaknesses
- c. If possible, we will create a survey for customers to answer and give them options that seem to be a good fit (recommender system)

4. Features:

- a. Bag of Words
- b. TF-IDF
- c. POS
- d. Autoencoder for dimensionality reduction
- e. Spacy
- f. Pytorch

5. Reference:

<https://medium.com/artefact-engineering-and-data-science/customer-reviews-use-nlp-to-gain-insights-from-your-data-4629519b518e>