

CS 410 Project Proposal

1. What are the names and NetIDs of all your team members? Who is the captain? The captain will have more administrative duties than team members.

Name	Net ID	Role
Jeremy Samuel	sjeremy3	Captain
Mahesh Matta	maheshm3	

2. What topic have you chosen? Why is it a problem? How does it relate to the theme and to the class?

The topic that we have chosen is Sentiment Analysis on Student Feedback to Improve Course Material. The reason we have chosen this topic is that currently there is no effective way to provide immediate feedback to improve the content of the courses. The only possible way that we can currently provide feedback is at the end of the course. This is too late and often leads to confusion during the course. We plan to simplify this process by collecting the feedback of students at regular intervals and then trying to identify the sentiment and any possible remediation steps that could be taken so that immediate feedback can be provided to the Instructors and TAs to take corrective action. This will also help improve and make online courses better.

3. Briefly describe any datasets, algorithms or techniques you plan to use

We would look to create a dataset consisting of existing data sets on student feedback. We would explore different algorithms like Naïve Bayes, SVM, BERT etc, and select the one that gives a good performance in sentiment analysis and then use it to provide feedback.

4. How will you demonstrate that your approach will work as expected?

- We would take student feedback and then classify whether it was a positive/negative one
- Will also try if time permits to provide a summarization of the issue highlighted and possible remediation steps

5. Which programming language do you plan to use?

- Python and if needed JavaScript

6. Please justify that the workload of your topic is at least $20 \cdot N$ hours, N being the total number of students in your team. You may list the main tasks to be completed, and the estimated time cost for each task.

Task	Hours Required
Requirement Gathering and Planning	5
Dataset preparation and collection	5
Preprocessing	5
Coding	15
Testing and Deployment	10