



# Senior Design Project

Presented by Anurag Neti



# Project Title - Movie Review Sentiment Analyzer

Project Members - Anurag Neti

Project Advisor - Fred Annexstein



# Senior Design Objectives

The goal of this senior design project was to a neural network robust enough to identify the sentiment of various movie reviews belonging to Python's IMDB movie review corpus.



# Intellectual Merits

1. The project forced to study Deep Learning in detail, allowing me to develop a deeper understanding of the subject.
2. I believe I now have greater command of the technological, as well as mathematical principles behind Deep Learning, and Neural Network architecture.



# Broader Impacts

1. The driving goal behind various natural language processing technologies in the past few years has been to create systems with behavior indistinguishable from humans. Google recently showcased an Artificial Intelligence assistant that booked a hair appointment for its owner by successfully fooling the customer representatives of the salon into thinking they were interacting with an actual human being.
2. Effective sentiment analysis technologies can go a long way towards making this goal a reality. For instance, chatbots, if trained to pick up various nuances in the language they interact with agents in, get better and better at replicating human-human interaction.



# Design Specifications

1. The majority of this project was developed within a single python script file.
2. The file imported various python libraries to complete its task.



# Technologies

1. Python
  - Keras
  - Numpy
  - tensorflow
  - Scikit learn
  - seaborn
2. MacOS