

## EDUCATION

### Computer Engineering

K J Somaiya College of Engineering

07/2015 – Present

## PROJECTS & RESEARCH

### Hate Speech Detection in Code-Mixed Tweets

- Trained word embeddings with code-mixed domain-specific tweets. Experimented with a benchmark dataset and used three deep learning models for detecting hate speech. Observed an improved representation of target groups and an improvement of about 12% in F-score over a past work that used statistical classifiers.

### Seq2seq In-house Chatbot Project

- A college in-house project. Created a seq2seq encoder-decoder architecture for a chatbot using Tensorflow inspired from the machine translational model. Incorporated an attention mechanism allowing for local context discovery. Currently trying to make further improvements.

### Skip-gram Model for Word2Vec

- Re-implemented the skip-gram model in Tensorflow to study word representation and context gathering. Implemented the code for data processing and created word embedding visualizations on Tensorboard. Documented the results and my learnings on Github.

### LSTM Sequence Counter

- Used LSTM cells in Tensorflow to calculate the number of 1's in an auto-generated binary element dataset, to study RNN's. Observed an improvement in recall and precision over the typical ANN model. Performed checks for overfitting.

### Sentiment Analysis Toy Project

- Toy project to study sentiment analysis. Detected sentiments in movie reviews. Understood the working of text sequences and experimented with data preprocessing techniques.

### Neural Image Style Transfer

- Created and documented a deep learning model to transfer the style of 2 style images into a single base image. Used Transfer-learning and utilized the VGG-16 model. Studied the functioning of style loss, content loss and also incorporated regularization.

### Convolutional Network for CIFAR-10 Using Batch Normalization

- Built a ConvNet with batch normalization to classify distorted RGB images in the CIFAR-10 dataset. The primary purpose was to analyze the effect of batch normalization on the inference.

### Tensorflow Workflow

- Implemented and documented (on Github) various network architectures such as ANN, CNN, LSTM and logistic regression in Tensorflow over the basic MNIST dataset for the purpose of self-study.

## TECHNICAL SKILLS

C++/ C



Python



Tensorflow



Java



Django



HTML/ CSS



## CONFERENCE PUBLICATION

International Conference on NLP (ICON 2018)

Satyajit Kamble, Aditya Joshi, "Hate Speech Detection from Code-mixed Hindi-English Tweets Using Deep Learning Models", December 2018.

## OTHER INTERESTS

Filmmaking

Photography

Movies

Reading

Football

Music