Utsay Das

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Education

University of Waterloo 2019 - 2021

Master of Mathematics - MMath, Computer Science GPA: 87/100 (3.93/4)

Supervisor: Dr. Olga Vechtomova, Natural Language

Processing Research Lab

University of Mumbai 2015 - 2019

Bachelor of Engineering - BE, Information Technology GPA: 8.72/10

Skills

Python, PyTorch, NLTK, Spacy, Gensim, Numpy, Pandas, Scikit-learn, C/C++

Experience

Syntax-aware Sentence Generation (Ongoing)

Master's Thesis

- Implemented graph convolutional networks with a Seq2Seq model on the SNLI dataset to incorporate syntactical information into sentence generation.
- Evaluated sentence reconstruction performance with partial syntactic information from multiple sentences.

Aspect-based Sentiment Analysis

Manulife Financial Corporation

- Implemented BERT-based methods and graph convolutional networks to perform aspect-based sentiment analysis.
- Evaluated the methods on the Laptop and Restaurant Reviews datasets and the US Financial News Articles dataset.

Topic Modelling for Short Text

Manulife Financial Corporation

- Evaluated different topic modeling methods for short text on the StackOverflow and Switchboard datasets.
- Delivered a modularized implementation of the methods to Manulife for use on their proprietary data.

Measuring and Mitigating Unintended Bias in Text Classification

- Measured bias in hate speech detection models as a result of certain identity terms present in text.
- Implemented bias mitigation strategies such as identity term removal and data augmentation to reduce false negatives.

Graduate Teaching Assistant

 Functional Programming (CS 135, Fall 2019), Elementary Algorithm Design and Data Abstraction (CS 136, Winter 2020), Algorithms (CS 341, Spring 2020, Fall 2020, Winter 2021), Introduction to Computer Science 2 (CS 116, Spring 2021)