Harsh Trivedi

Website: http://harshtrivedi.me **Github:** https://github.com/harshtrivedi

Research Interests

Broad: Natural Language Processing, Machine Learning, Deep Learning
Specific: Question Answering, Model Robustness and Generalization, Transfer Learning

Education

PhD in Computer Science, Stony Brook University, US (**GPA: 4.0/4.0**) Jan'19- Present
Research Focus: Multihop Reasoning, Model Robustness and Generalization
Advisor: Professor Niranjan Balasubramanian

M.S in Computer Science, Stony Brook University, US (**GPA: 4.0/4.0**) Jan'17- Dec'18
Relevant Courses: Natural Language Processing, Machine Learning, Convex Optimization, Probability and Statistics for Data Science, Computer Vision, Computing with Logic
Thesis: Information Aggregation for Question Answering and Natural Language Inference
Advisor: Professor Niranjan Balasubramanian

B. Tech in Information & Communication Technology, Aug'12-May'16
Dhirubhai Ambani Institute of Information & Communication Technology, India (**GPA: 8.23/10**)
Relevant Courses: Information Retrieval, Data Mining, Data Structures and Algorithms
Final Project: Automatic Pseudo Relevance Label Generation for Learning to Rank
Advisor: Professor Prasenjit Majumder

Research Papers

Measuring and Reducing Non-Multifact Reasoning in Multi-hop Question Answering 2020
Conference on Empirical Methods in Natural Language Processing **(EMNLP 2020)**
H. Trivedi, N. Balasubramanian, T. Khot, A. Sabharwal

DeFormer: Decomposing Pre-trained Transformers for Faster Question Answering 2020
Annual Meeting of the Association for Computational Linguistics **(ACL 2020)**
H. Kwon, **H. Trivedi**, T. Khot, A. Sabharwal, N. Balasubramanian

Repurposing Entailment for Multi-Hop Question Answering Tasks 2019
North American Chapter of the Association for Computational Linguistics **(NAACL 2019)**
H. Trivedi, H. Kwon, T. Khot, A. Sabharwal, N. Balasubramanian

Controlling Information Aggregation for Complex Question Answering 2018
European Conference on Information Retrieval **(ECIR 2018)**
H. Kwon, **H. Trivedi**, P. Jansen, M. Surdeanu, N. Balasubramanian

Noise Correction in Pairwise Document Preferences for Learning to Rank 2016
Asia Information Retrieval Societies **(AIRS 2016)** **H. Trivedi**, P. Majumder

Author Masking through Translation 2016
Conference and Labs of the Evaluation Forum **(CLEF 2016)** Y. Keswani, **H. Trivedi**, P. Mehta, P. Majumder

A New Approach to Syllabification of Words in Gujarati 2015
Mining Information & Knowledge Exploration (MIKE 2015) **H. Trivedi**, A. Patel, P. Majumder

Research Internships

Courant Institute, New York University Jun'20-Aug'19
Visiting Researcher in ML2 lab under Sam Bowman

Allen Institute of Artificial Intelligence (AI2) Mar'19-July'19
Research Intern in Aristo team under Ashish Sabharwal and Tushar Khot

Graduate Teaching Assistantship

Natural Language Processing, Stony Brook Aug'20-Dec'19
Designed and implemented several coding assignments (in TF2.0) on training word embeddings, sequence classification, model probing and dependence parsing.

Professional Service

Program Committee / Reviewer: CoNLL'19, EMNLP'20, AAAI'21
Secondary Reviewer: AAAI'19, ACL'19, EMNLP'19

Awards and Achievements

- Topped Natural Language Processing and Convex Optimization courses at Stony Brook University.
- Stood 1st in In-Class kaggle competition hosted in Machine Learning course at Stony Brook University.
- Ranked 6186 among 1.2M students (top 0.5%), All India Engineering Entrance Examination (AIEEE), 2012.
- 1st prize in National and State competition of Mental Arithmetic (ALOHA) [2009].
- 3rd prize in National drawing competition held by Department of Post, India [2008].
- 1st prize in drawing competition held by Forest Department, Gujarat. [2007].

Past Activities

- Contributed to AllenNLP, an open-source framework build on pytorch for NLP research.
- Led web development of a social networking platform (college startup) for two years during undergrad.
- Developed FIRE 2015/16 conference website with content management system for easy maintainability.

Technical Skills

Languages: Python, Ruby, HTML and Javascript
Frameworks: Pytorch, Tensorflow, AllenNLP, Panda and Scikit-learn