# Laiba Mehnaz

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## Education

**Delhi Technological University, New Delhi, India** Aug. 2016 – May 2020
*B.Tech in Software Engineering* *CGPA: 7.88/10.0*
**Thesis** on "Using Transfer Learning for Drug Detection from Tweets" [**pdf**]

**Indian School Muscat, Oman** 2016
*All India Senior School Certificate Examination (Class XII), CBSE* *96% (3rd rank in the school)*

**Indian School Muscat, Oman** 2014
*All India Senior School Certificate Examination (Class X), CBSE* *GPA: 9.8/10*

## Work Experience

**Research Assistant** June 2020 – Present
*MIDAS-IIITD, Indraprastha Institute of Information Technology, Delhi* *New Delhi, India*

- Worked on the collection, curation, analysis and summarization of code-mixed Hindi-English conversational dataset. [**code**]
  - Developed a Python framework for computing the following metrics for any Hindi-English code-mixed dataset: code-mixing index, integration of both the languages, multilinguality and entropy of the code-mixed dataset, and burstiness and probablity of switching in the dataset.
  - Worked on code-mixed conversation summarization using pretrained seq2seq models, and carrying out a thorough analysis for the reasons of failure.
- Participated in the Shared Task in SMM4H at COLING 2020, for automatic classification of tweets mentioning a drug, focusing on pretrained sentence encoders. Our system ranked 7th out of 26 teams. (published)

**Research Intern** June 2019 – Aug 2019
*MIDAS-IIITD, Indraprastha Institute of Information Technology, Delhi* *New Delhi, India*

- Worked on the Shared task in SMM4H at ACL 2019, for identification of adverse drug reactions from Tweets. [**code**]
  - Used transfer learning approaches for classification of tweets with mentions of adverse drug reactions, reporting of personal heath problems, and identifying spans mentioning adverse drug reactions in tweets. (published)
- Worked on the Shared Task in SemEval at NAACL-HLT 2019 for Identification of Offensive Posts and Targeted Offense from Twitter.
  - Our system ranked 5th out of 103 teams for classification of offensive tweets, and 8th out of 74 teams for identifying if an offensive post was targeted or not. (published)
- Worked on the Shared Task in SemEval at NAACL-HLT 2019 for suggestion mining from online reviews
  - Our system ranked 10th out of 34 teams for the suggestion mining task. (published)

**Research Intern** June 2018 – Aug 2018
*MIDAS-IIITD, Indraprastha Institute of Information Technology, Delhi* *New Delhi, India*

- Collected and curated a dataset consisting of tweets that contained blood donation requests. Using machine learning, worked on showing the potential of the dataset to build systems for identification of emergency blood donation requests on Twitter. (published)
- Using Spacy built a framework for automatic extraction and ranking of keyphrases from articles using a supervised technique (Key2Vec) that leverages phrase embeddings for ranking keyphrases. Implemented this in ranking algortithms such as TextRank, SGRank, SingleRank, and TopicRank. [**code**]

## Projects

**Unsupervised Domain Adaptation for Sentiment Analysis using BERT** [**poster**] [**code**]

- Using Domain Adversarial training, reduced the divergence between representations of both the target domain and source domain for the task of sentiment analysis in BERT, producing domain invariant representations with higher accuracy on the target domain, at each layer.
- Our project won the first place in the The 17th SoC Term Project Showcase, at NUS.

## Publications

**Laiba Mehnaz.** (2020). Automatic classification of tweets mentioning a medication using pre-trained sentence encoders. *In Proceedings of the Workshop on Social Media Mining for Health Applications, Barcelona, Spain, December 2020. The 28th International Conference on Computational Linguistics.* [**paper**] [**poster**]

**Laiba Mehnaz** and Rajni Jindal. (2020). Using Transfer Learning for detecting drug mentions in tweets. *Accepted in the Fifth International Conference on ICT for Sustainable Development. Goa, India.* [**paper**]

Sarthak Anand, Debanjan Mahata, Haimin Zhang, Simra Shahid, **Laiba Mehnaz**, Yaman Kumar, Rajiv Ratn Shah. (2019). MIDAS@SMM4H-2019: Identifying Adverse Drug Reactions and Personal Health Experience Mentions from Twitter. *In Proceedings of the Workshop on Social Media Mining for Health Applications, Florence, Italy, July 2019. Association for Computational Linguistics.* [**paper**] [**poster**]

Haimin Zhang, Debanjan Mahata, Simra Shahid, **Laiba Mehnaz**, Sarthak Anand, Yaman Kumar, Rajiv Ratn Shah, Karan Uppal. (2019). MIDAS at SemEval-2019 Task 6: Identifying Offensive Posts and Targeted Offense from Twitter. *In Proceedings of the International Workshop of Semantic Evaluation collocated with NAACL-HLT 2019, Minneapolis, USA.* [**paper**]

Sarthak Anand, Debanjan Mahata, Kartik Aggarwal, **Laiba Mehnaz**, Simra Shahid, Haimin Zhang, Yaman Kumar, Rajiv Ratn Shah, Karan Uppal. (2019). MIDAS at SemEval-2019 Task 9: Suggestion Mining from Online Reviews using ULMFiT. *In Proceedings of the International Workshop of Semantic Evaluation collocated with NAACL-HLT 2019, Minneapolis, USA.* [**paper**]

Puneet Mathur, Meghna Ayyar, Sahil Chopra, Simra Shahid, **Laiba Mehnaz**, Rajiv Ratn Shah. (2019). Identification of Emergency Blood Donation Request on Twitter. *In Proceedings of the 3rd Workshop on Social Media Mining for Health Applications held in conjunction with Empirical Methods in Natural Language Processing, EMNLP 2018.* [**paper**]

## Professional Services

Reviewer for SMM4H 2020 Workshop co-located with COLING 2020.

## Technical Skills

**Languages**: Python, C/C++, Java
**Frameworks**: TensorFlow, Keras, PyTorch, SpaCy, Sci-Kit, NLTK, Gensim, Git
**Natural Languages**: Fluent in English and Hindi, beginner in Arabic

## Leadership Positions

**TedxDTU**, Public Relations and Media Executive — Jan'18-Jan 2020

- Planned and conducted several publicity campaigns in and around the campus
- Led a team for attendee management as well as the hospitality for the speakers arriving for the talk

**Leaders for Tomorrow**, Non-Profit Organization — Aug'17-May'19

- Participated in several plantation drives throughout the campus and other parts of the cities.
- Conducted fundraising events and donation camps for slum children.