

Ankita Gupta

ankitagupta@umass.edu
ankitaiisc.github.io
Google Scholar

EDUCATION

University of Massachusetts Amherst

Ph.D., Computer Science

2021 – Present

Advisor: Brendan T. O'Connor

Indian Institute of Science Bangalore

M.E. with Thesis, Electrical Engineering and Computer Science

2017

Advisor: P. S. Sastry

Malaviya National Institute of Technology Jaipur

B.Tech., Electrical Engineering

2014

HONORS AND AWARDS

Plenary talk at IC2S2	2024
IBM PhD Fellowship Award	2023-2024
Invited talk at CRAC, EMNLP	2023
Research talk at TADA	2021
UMass W. Bruce Croft Scholarship (one student in NLP)	2021
UMass Anuradha and Hanuma Kodavalla Scholarship (two students in the department)	2021
Grace Hopper Fellow	2021
Samsung Citizen Award	2019
Travel grant by Microsoft Research	2017
Travel grant by Robert Bosch Centre for Cyber Physical Systems	2017
Gold Medalist, Department of Electrical Engineering, MNIT	2014
All India Rank 08 in Graduate Aptitude Test	2014
KVPY Fellowship (Young scientist fellowship, Government of India)	2010

PUBLICATIONS

Peer-Reviewed

- [1] Harnessing Toulmin's theory for zero-shot argument explication.
Ankita Gupta, Ethan Zuckerman, Brendan O'Connor.
In *ACL*, 2024.
Also plenary talk at IC2S2, 2024.
- [2] Evaluating and Improving the Robustness of Open Dialogue Summarization Models.
Ankita Gupta, Chulaka Gunasekara, Hui Wan, Jatin Ganhotra, Sachindra Joshi, Marina Danivelsky.
In NLP for ConvAI at *ACL*, 2024.

- [3] NarrativeTime: Dense Temporal Annotation on a Timeline.
Anna Rogers, Marzena Karpinska, **Ankita Gupta**, Vladislav Lialin, Gregory Smelkov, Anna Rumshisky.
In *LREC-Coling*, 2024.
- [4] Quantifying the Causal Effect of Gender on Interruptions in Supreme Court Oral Arguments.
Erica Cai, **Ankita Gupta**, Katherine Keith, Brendan O’Connor and Douglas Rice.
In *Journal of law and courts*, 2024
Preliminary results also presented at *New Directions in Analyzing Text as Data (TADA)*, 2022.
- [5] ezCoref: Towards Unifying Annotation Guidelines for Coreference Resolution.
Ankita Gupta, Marzena Karpinska, Wenlong Zhao, Kalpesh Krishna, Jack Merullo, Luke Yeh, Mohit Iyyer, Brendan O’Connor.
In *Findings of EACL*, 2023.
Also presented at NENLP 2023 and CRAC, EMNLP 2023.
- [6] Examining Political Rhetoric with Epistemic Stance Detection.
Ankita Gupta, Su Lin Blodgett, Justin H. Gross, and Brendan O’Connor.
In *Proceedings of the Fifth Workshop on Natural Language Processing and Computational Social Science (NLP+CSS) at EMNLP*, 2022.
- [7] PoliBelief: A Multi-source Epistemic Stance Dataset for Analyzing Political Ideology.
Ankita Gupta, Su Lin Blodgett, Justin H. Gross, and Brendan O’Connor.
In *11th Annual Conference on Analyzing Text as Data (TADA)*, 2021.

Pre-PhD Publications

- [8] Instability Prediction in Power Systems using Recurrent Neural Networks.
Ankita Gupta, Gurunath Gurrala, Pidaparthi S Sastry.
In *Proceedings of the Twenty-Sixth IJCAI*, 2017.
- [9] An Online Power System Stability Monitoring System using Convolutional Neural Networks.
Ankita Gupta, Gurunath Gurrala, and P. S. Sastry.
IEEE Transactions on Power Systems. 2018.
- [10] Question Factuality and Answer Veracity Prediction in Community Forums.
Ankita Gupta, S Sahoo, D Prakash, R.R Rohit, V Srivastava, and Y H Kim.
In *Proceedings of the 13th International Workshop on Semantic Evaluation*, 2019.
- [11] Hyperpartisan News Detection using Lexical and Semantic Features.
V Srivastava, **Ankita Gupta**, D. Prakash, S Sahoo, R.R Rohit, and Y H Kim.
In *Proceedings of the 13th International Workshop on Semantic Evaluation*, 2019.
- [12] Knowledge Directed Multi-task Framework for Natural Language Inference in Clinical Domain
S Chopra, **Ankita Gupta**, and A Kaushik.
In *Proceedings of the 18th BioNLP Workshop and Shared Task*, 2019.

RESEARCH EXPERIENCE

UMass Amherst

2021-Present

Graduate Research Assistant

Advisor: Brendan T. O'Connor

Developing statistical and discourse analysis methods for public interest technology applications such as zero-shot argument explication to analyze public comments [1], epistemic stances to identify conflicting entity beliefs as expressed in the political text [5-7], estimating the causal effect of gender on interruptions in oral arguments [4].

IBM Yorktown Heights

June-September 2023

Research Intern, Language Technologies

Mentors: Danish Contractor, Marina Danilevsky, Chulaka Gunasekara, Brendan T. O'Connor

Worked on retrieval-augmented generation methods to improve policy-grounded dialogue systems.

IBM Yorktown Heights

May-August 2022

Research Intern, Language Technologies

Mentors: Chulaka Gunasekara, Hui Wan, Marina Danilevsky

Worked on evaluating and improving the robustness of dialogue summarization in the presence of real-world input noise (e.g., repetitions, clarifications) [2].

Amazon Bangalore

2020-2021

Applied Scientist, India Machine Learning Team

Worked on contextual bandits to rank deals & discounts on the e-commerce platform, automatic curation of theme-specific products using positive-unlabelled learning.

Samsung Bangalore

2017-2020

Lead ML Engineer, Advanced Technology Lab

Worked on fact-verification [11], hyperpartisan news detection [12], logical fallacies, natural language inference for the clinical domain [13], claim extraction using abstractive summarization and sentence ranking techniques, reading-comprehension tasks to extract snippets of text that are relevant to a claim in a fact-checking pipeline.

Indian Institute of Science Bangalore

2016-2017

Graduate Research Assistant

Advisors: P.S. Sastry and Gurunath Gurrula

Worked on power-systems instability prediction using recurrent neural networks [9] and convolutional neural networks [10].

RELEVANT GRADUATE COURSEWORK

Simulation and Causal Modeling, Advanced Natural Language Processing, Probabilistic Graphical Models, Advanced Algorithms, Machine Learning for Signal Processing, Data Analytics, Game Theory, Pattern Recognition, and Neural Networks, Data Mining, Linear and Non-Linear Optimization.

COMPETENCIES

Languages Hindi (*native*), English (*fluent*, TOEFL 119)

Programming Python, C/C++ (*Certified Professional, Samsung*), Java, Matlab, R, JavaScript

Libraries and Services Tensorflow, PyTorch, Theano, Stanford CoreNLP, NLTK, Amazon Mechanical Turk, Amazon Web Service, Amazon SageMaker, Git

SERVICE AND OUTREACH

Mentoring UMass Undergraduate Research Volunteer Program's scholarship-winning team 2024

Teaching Assistant for UMass CS685 (Advanced Natural Language Processing) Feb-May 2023

Committee Member, Ph.D. Applicant Support Program, UMass CICS. 2022, 2023

Organizer, Machine Learning & Friends Lunch, UMass CICS. 2022, 2023

Mentor, Ph.D. Applicant Support Program, UMass CICS. 2021

Volunteer, Candidate Friday, UMass CICS. 2021

Reading Group Coordinator, Samsung. 2018-2019

Young Women Professional Representative, Budget Meeting, Chief Minister Secretariat. 2014

Student Representative, Departmental Under Graduate Committee, MNIT, Jaipur. 2013-2014

Reviewer/Program Committee: EMNLP 2023, DialDoc 2023, ACL 2023, EACL 2023, EMNLP 2022, ARR 2021-Present.

MENTORING

Swetha Eppalapally (MS), Daksh Dangi (MS), Chaithra Bhat (MS) with Adobe Feb-May 2024

Kate Sorz (BS), Kaitlyn Malsky (BS), Algis Petlin (BS) Jan 2024

Dat Duong (MS), Philip George (MS), Nirupan Ananthamurugan (MS) with Google Feb-May 2023

Madhu S. Vangara (MS), Gauri Chaware (MS), Rahul Tandon (MS) with Lexalytics Feb-May 2022

Samuel Wallace (BS) Feb-May 2022