

ACADEMIC APPOINTMENTS AND AFFILIATIONS

Postdoctoral Research Associate

Sep 2023 - Aug 2025

Network Science Institute, College of Social Sciences and Humanities

Northeastern University

Advisor: Prof. David Lazer

Affiliated Researcher

Sep 2023 -

The NULab for Text, Maps, and Networks

Northeastern University

EDUCATION

Ph.D., Computer Science

2018 - 2023

University of Maryland, College Park

Dissertation: Analyzing communicative choices to understand their motivations, context-based variation, and social consequences

Advisor: Philip Resnik

Masters, Computer Science

2018 - 2020

University of Maryland, College Park

B.Tech. Computer Science & Engineering (with Honors in AI)

2014 - 2018

Indian Institute of Technology (BHU) Varanasi, India

Advisor: Anil Kumar Singh

RESEARCH AND PROFESSIONAL EXPERIENCE

Visiting Research Scholar: Lazer Lab, Northeastern University

June 2021 - Aug 2023

Project: Mainstream News Sharing in Online Misinformation Networks

Supervisor: Prof. David Lazer

Summer Research Fellow: National Institute of Science & Technology (NIST)

June-Sep 2022

Project: An Interactive Document Annotation Tool using Technical Language Processing for Measurement Science, working with the NIST Community Resilience Program

Supervisor: Prof. Jordan Boyd-Graber & Dr. Juan Fung

Research Intern: NLP Group, Microsoft Research, Redmond

June 2020 - Aug 2020

Project: Money Talks? Associations between Donor Activity and Congressional Floor Speech

Supervisor: Dr. Nebojsa Jojic

Research Intern: NLP Group, Microsoft Research, Redmond

June 2019 - Aug 2019

Project: Different Language Generation Mechanisms for Chatbots - What are the Differences?

Supervisor: Dr. Nebojsa Jojic

Research Intern: Articulab, Carnegie Mellon University

May 2017 - July 2017

Project: Conversational Strategy Classification for a Virtual Assistant and Detecting Indirectness

Supervisors: Prof. Yoichi Matsuyama and Prof. Justine Cassell

Research Intern: CFILT Lab, Indian Institute of Technology Bombay

May 2016 - July 2016

Project: Sarcasm Target Identification

Supervisors: Dr. Aditya Joshi and Prof. Pushpak Bhattacharyya

Software Engineering Intern: Ephesoft, India

Dec 2016 - Jan 2017

Project: Comparing Content Analysis Approaches (with the Data Science team)

[1] Alexander Hoyle, Rupak Sarkar, **Pranav Goel**, and Philip Resnik. “Natural Language Decompositions of Implicit Content Enable Better Text Representations” Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP). 2023.

[2] **Pranav Goel**, Nikolay Malkin*, SoRelle W. Gaynor*, Kristina Miler, Nebojsa Jojic, Philip Resnik. 2023. “Donor Activity is Associated with US Legislators Attention to Political Issues.” PLoS ONE 18(9): e0291169. <https://doi.org/10.1371/journal.pone.0291169>

[3] **Pranav Goel**, David Lazer, Philip Resnik. “Mainstream News Articles Co-Shared with Fake News Buttress Misinformation Narratives.” International AAAI Conference on Web and Social Media (ICWSM) 2023. (Non-archival track). *Outstanding Study Design Award*.

[4] Alexander Hoyle, **Pranav Goel**, Rupak Sarkar, and Philip Resnik. “Are Neural Topic Models Broken?” Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP) (Findings). 2022.

[5] **Pranav Goel***, Alexander Hoyle*, Denis Peskov*, Andrew Hian-Cheong*, Jordan Boyd-Graber, and Philip Resnik. “Is Automated Topic Model Evaluation Broken?: The Incoherence of Coherence.” Advances in Neural Information Processing Systems (2021). *Spotlight Presentation at NeurIPS 2021*

[6] Nikolay Malkin, Sameera Lanka, **Pranav Goel**, and Nebojsa Jojic. “Studying word order through iterative shuffling.” Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP). 2021.

[7] Nikolay Malkin, Sameera Lanka, **Pranav Goel**, Sudha Rao, and Nebojsa Jojic. “GPT Perdetry Test: Generating new meanings for new words” In Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL). 2021.

[8] **Pranav Goel***, Alexander Hoyle*, and Philip Resnik. “Improving Neural Topic Models Using Knowledge Distillation.” Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP). 2020. Presentation

[9] **Pranav Goel**, Shi Feng, and Jordan Boyd-Graber. “How Pre-trained Word Representations Capture Commonsense Physical Comparisons”. Proceedings of the 1st Workshop on Commonsense Inference in Natural Language Processing at EMNLP 2019. Presentation

[10] **Pranav Goel***, Devang Kulshreshtha*, and Anil Kumar Singh. “How emotional are you? Neural Architectures for Emotion Intensity Prediction in Microblogs”. COLING 2018. Presentation

[11] **Pranav Goel**, Yoichi Matsuyama, Michael Madaio, and Justine Cassell. “I think it might help if we multiply, and not add”: Detecting Indirectness in Conversation. Proceedings of the International Workshop Series on Spoken Dialogue Systems Technology (IWSDS) 2018. Presentation (Also published as a Chapter in the Book: 9th International Workshop on Spoken Dialogue System Technology pp 27-40, Lecture Notes in Electrical Engineering, vol 579. Springer, Singapore.)

[12] Aditya Joshi, **Pranav Goel**, Pushpak Bhattacharyya, and Mark J. Carman. “Sarcasm Target Identification: Dataset and An Introductory Approach.” LREC 2018-11th edition of the Language Resources and Evaluation Conference 2018. Poster

[13] **Pranav Goel***, Devang Kulshreshtha*, Prayas Jain and K.K. Shukla. “Prayas at emoint 2017: An ensemble of deep neural architectures for emotion intensity prediction in tweets.” Proceedings of the 8th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis at EMNLP 2017. (Shared Task Winner!) Presentation

[14] **Pranav Goel** and Anil Kumar Singh. “IIT (BHU): System Description for LSDSem’17 Shared Task.” Proceedings of the 2nd Workshop on Linking Models of Lexical, Sentential and Discourse-level Semantics at EACL 2017. Poster

* joint first author

Under Review:

- SoRelle W. Gaynor, Kristina Miler, **Pranav Goel**, Alexander M. Hoyle, and Philip Resnik. “Express Yourself (Ideologically): Legislators’ Ideal Points Across Audiences.” *Journal of Politics*.
- McCabe, Stefan, Jon Green, **Pranav Goel**, and David Lazer. “Inequalities in Online Representation: Who follows their own Member of Congress on Twitter?” *Journal of Quantitative Description (JQD)*.

SERVICE TO PROFESSION

- Reviewer at NeurIPS 2023.
- Program Committee at ACL 2023.
- Reviewer Committee for the Computational Social Science and Cultural Analytics track at EMNLP 2022.
- Reviewer for the ACL Rolling Review (ARR).
- Reviewer for EMNLP 2021, Computational Social Science and Cultural Analytics track; Information Retrieval and Text Mining track.
- Reviewer for CLPsych 2021 workshop at NAACL 2021.
- Reviewer for ACL 2021, Computational Social Science and Cultural Analytics track.

TEACHING

Teaching Assistant <i>Discrete Mathematics at Dept of Computer Science, University of Maryland</i>	Spring 2020
Teaching Assistant <i>Discrete Mathematics at Dept of Computer Science, University of Maryland</i>	Fall 2019
Teaching Assistant <i>Introduction to Natural Language Processing at Dept of Computer Science, University of Maryland</i>	Spring 2019
Teaching Assistant <i>Discrete Mathematics at Dept of Computer Science, University of Maryland</i>	Fall 2018
Teaching Assistant <i>Introduction to Artificial Intelligence at Dept of Computer Science & Engineering, Indian Institute of Technology (BHU) Varanasi</i>	Spring 2018
Teaching Assistant <i>Introduction to Programming in C at Dept of Computer Science & Engineering, Indian Institute of Technology (BHU) Varanasi</i>	Fall 2016

AWARDS AND SCHOLARSHIPS

- Outstanding Study Design Award at ICWSM 2023
- Ann G. Wylie Dissertation Fellowship 2023
- Jacob K. Goldhaber Travel Grant 2023
- Dean's Fellowship, University of Maryland, 2019-2020.
- Dean's Fellowship, University of Maryland, 2018-2019.
- Selected for the DAAD-WISE scholarship/internship program for 2017.