Venkata S Govindarajan

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RESEARCH STATEMENT

I am a Ph.D. candidate in Computational Linguistics at UT Austin studying intergroup bias in online communication, *expecting to graduate in May 2024*.
Previously, I have studied how individuals perform pragmatic acts like giving advice, worked on unsupervised methods for detecting data drift in NLU models, and surveyed the diversity of generalizations available across predicates and arguments in English.

EDUCATION

The University of Texas at Austin — 2019–2024
Ph.D. Computational Linguistics — GPA: 3.92/4
Committee: Jessy Li, David Beaver, Kyle Mahowald & Malihe Alikhani

University of Rochester — 2017–2019
M.S. Computational Linguistics — GPA: 3.75/4
Advisor: Aaron Steven White

Indian Institute of Technology Madras — 2012–2017
B.Tech & M.Tech Biological Engineering — GPA: 8.68/10

PUBLICATIONS

Govindarajan, V. S., D. Beaver, K. Mahowald & J. J. Li. 2023. Counterfactual Probing for the Influence of Affect and Specificity on Intergroup Bias. In *Findings of the Association for Computational Linguistics: ACL 2023*, 12853–12862. Toronto, Canada: Association for Computational Linguistics.

Govindarajan, V. S., K. Atwell, B. Sinno, M. Alikhani, D. Beaver & J. J. Li. 2023a. How people talk about each other: Modeling Generalized Intergroup Bias and Emotion. In *Proceedings of the 17th Conference of the European Chapter of the Association for Computational Linguistics*, 2488–2498. Dubrovnik, Croatia: Association for Computational Linguistics.

Kovatchev, V., T. Chatterjee, **V. S. Govindarajan**, J. Chen, et al. 2022. longhorns at DADC 2022: How many linguists does it take to fool a Question Answering model? A systematic approach to adversarial attacks. In *Proceedings of the First Workshop on Dynamic Adversarial Data Collection*, 41–52. Seattle, WA: Association for Computational Linguistics.

Govindarajan, V. S., B. Chen, R. Warholic, K. Erk & J. J. Li. 2020a. Help! Need Advice on Identifying Advice. In *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 5295–5306. Online: Association for Computational Linguistics.

White, A. S., E. Stengel-Eskin, S. Vashishtha, **V. S. Govindarajan**, et al. 2020. The Universal Decompositional Semantics Dataset and Decomp Toolkit. In *Proceedings of The 12th Language Resources and Evaluation Conference (LREC)*, 5698–5707. Marseille, France: European Language Resources Association.

Govindarajan, V., B. V. Durme & A. S. White. 2019. Decomposing Generalization: Models of Generic , Habitual, and Episodic Statements. *Transactions of the Association for Computational Linguistics (TACL)* 7. 501–517.

TALKS

Govindarajan, V. S., K. Atwell, B. Sinno, M. Alikhani, D. I. Beaver & J. J. Li. 2023b. How people talk about each other: Modeling Generalized Intergroup Bias and Emotion. Presented at *The 17th Conference of the European Chapter of the Association for Computational Linguistics (EACL)*. Dubrovnik, Croatia. May 2 2023.

Govindarajan, V. S., B. T. Chen, R. Warholic, K. Erk & J. J. Li. 2020b. Help! Need Advice on Identifying Advice. Presented at *The 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Virtual. Nov 16-20 2020.

Govindarajan, V., B. V. Durme & A. S. White. 2020. Decomposing Generalization: Models of Generic , Habitual, and Episodic Statements. Presented at *The 58th Annual Meeting of the Association for Computational Linguistics (ACL)*. Virtual. July 5-10 2020.

WORK EXPERIENCE

The New York Times — Summer 2023

Data Scientist Intern

Built a framework for offline evaluation of novel user and article features to inform model building in algorithmic recommendations. Predicted that potential features like EASE would boost engagement up-to 2% while diversifying recommendations.

Amazon — Summer 2021

Alexa Applied Scientist Intern

Implemented an unsupervised method for detecting data drift in NLU models, and validated the approach on simulated and customer data. Received return internship offer for summer 2022.

TEACHING & MENTORSHIP

Teaching

Assistant Instructor at UT Austin — Summer 2022

Language and Computers (LIN S313)

Introductory course to computational studies of language. Summer course over 5 weeks with 3 students. Designed and developed lectures, assignments, discussion topics, and supervised final projects over last 2 weeks.

Teaching Assistant

I served as TA on the following courses, where my responsibilities included holding office hours, grading assignments, and occasional substitute lectures:

- Machine Learning Toolbox for Text Analysis (LIN373N) — Spring 2021
- Analyzing Linguistic Data and Programming for Linguists (LIN350) — Spring 2020
- Introduction to Computational Linguistics (LIN353C) — Fall 2019
- Introduction to Computational Linguistics — Fall 2018
- Data Structures and Algorithms for Biology — Fall 2016

Mentorship

Yuki Zhang (undergraduate at Brown University) — Summer 2023–Present

Intergroup Bias dynamics & discourse structure

PROFESSIONAL SERVICE

Organizing Committee

South by Semantics Workshop — 2022–2024

I am co-organizing a series of talks on semantics, computation and philosophy of language with Samuel Cantor, a graduate student in philosophy. We aim to bring scholars from across the country to Austin to share their cutting-edge research with us and improve the visibility of UT Austin's strengths in philosophy and linguistics in the broader scientific community.

Texas Linguistics Society (TLS) Conference — 2021, 2022

TLS is an annual student-run academic conference by the Department of Linguistics at UT Austin which includes presentations in all areas of linguistics. I served on the organizing committee and was involved in reviewing and assigning submissions for review, website design, scheduling, logistics for a fully virtual conference, and chairing keynote sessions and talks.

Reviewer

EMNLP 2023, ACL 2023, *SEM 2023, SIGDIAL 2023, SIGDIAL 2022

SKILLS

Programming Languages: Python, Swift, Javascript, R, SQL, Julia, LISP

Tools & Frameworks: pyTorch, Transformers, Tensorflow, Keras, scikit-learn, statsmodels, SciPy, Pandas, SwiftUI, CoreML, BigQuery, lme4

Languages: English (native), Tamil (native), Hindi (intermediate)

APPS

DeTeXt: I built an open source app for iOS, iPadOS and macOS that predicts the best LaTeX commands corresponding to hand-drawn symbols using deep neural networks. Built using SwiftUI, Combine, PencilKit and CoreML, the app has over 10,000 downloads.

AWARDS

NASSLI Student Grant (800 USD)	Summer 2022
COLA Supplemental Graduate School Fellowship (5000 USD)	Spring 2020
Silver medal at International Genetically Engineered Machine (iGEM)	Fall 2016
Indian Biological Engineering Competition (iBEC) grant (15,000 USD)	Fall 2016
National BIRAC-IdeaThon on Antimicrobial Resistance Finalist	Fall 2016
Second runner up in 3M-CII Young Innovators Challenge	Spring 2015