# Caleb Ziems

Curriculum Vitae

I work on socially competent and equitable NLP systems that are more aware of social norms and robust to language variation. My work also supports safety and wellbeing in online communities.

# Education

2023-Present Stanford University, Ph.D. in Computer Science.

NLP Group

Advisor: Diyi Yang

2020–2023 **Georgia Institute of Technology**, M.S. in Computer Science.

School of Interactive Computing

Advisor: Diyi Yang

Cumulative GPA: 3.95/4.0

2016–2020 **Emory University**, B.S. in Computer Science (highest honors), B.A. in Mathematics.

Thesis: Towards More Robust Methods of Cyberbullying Detection

Advisor: Ymir Vigfusson Cumulative GPA: 4.0/4.0

## **Publications**

Ziems, C., Held, W., Shaikh, O., Chen, J., Zhang, Z., & Yang, D. (2023). Can
 Large Language Models Transform Computational Social Science? In Computational Linguistics, 49(4). PDF

2023 Kruk, J., Ziems, C., & Yang, D. (2023). Impressions: Visual Semiotics and Aesthetic EMNLP Impact Understanding. In Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing. PDF

2023 Li, E., Shi, T., Ziems, C., Kan, M., Chen, N., Liu, Z., & Yang, D. (2023). CoAnnotating: Uncertainty-Guided Work Allocation between Human and Large Language Models for Data Annotation. In Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing. PDF

**Ziems, C.\***, Held, W.\*, Yang, J., & Yang, D. (2023). Multi-VALUE: A Framework for Cross-Dialectal English NLP. In Proceedings of the 61st Annual Meeting of the

Association for Computational Linguistics. PDF

2023 Ziems, C., Dwivedi-Yu, J., Wang, Y., Halevy, A. Y., & Yang, D. (2023). NormBank:

**ACL** A Knowledge Bank of Situational Social Norms. In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics. PDF

2023 Shaikh, O.\*, **Ziems, C.**\*, Held, W., Pariani, A. J., Morstatter, F., & Yang, D. (2023).

ACL Modeling Cross-Cultural Pragmatic Inference with Codenames Duet. In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics: Findings.

- 2023 Held, W., Ziems, C., & Yang, D. (2023). TADA: Task-Agnostic Dialect Adapters for
- **ACL** English. In Proceedings of the 61st Annual Meeting of the Association for Computa-Findings tional Linguistics: Findings. PDF
  - 2022 Ziems, C., Chen, J., Harris, C., Anderson, A., & Yang, D. (2022). VALUE: Understanding Dialect Disparity in NLU. In Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing. PDF
  - 2022 Ziems, C., Yu, J. A., Wang, Y., Halevy, A. Y., & Yang, D. (2022). The Moral Integrity Corpus: A Benchmark for Ethical Dialogue Systems. In Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing. PDF
  - Ziems, C.\*, Li, M.\*, Zhang, A., & Yang, D. (2022). Inducing Positive Perspectives With Text Reframing. In Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing. PDF Outstanding Paper Award.
- Ziems, C.\*, ElSherief, M.\*, Muchlinski, D., Anupindi, V., Seybolt, J., De Choudhury,
  EMNLP M., & Yang, D. (2021). Latent Hatred: A Benchmark for Understanding Implicit Hate Speech. In Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing. PDF
- 2021 **Ziems, C**., Yang, D. (2021). To Protect and To Serve? Analyzing Entity-Centric **EMNLP** Framing of Police Violence. In Proceedings of the 2021 Conference on Empirical Findings Methods in Natural Language Processing: Findings. PDF
- 2021 He, B., **Ziems, C.**, Soni, S., Ramakrishnan, N., Yang, D., & Kumar, S. (2021). Racism **ASONAM** is a Virus: Anti-Asian Hate and Counterhate in Social Media during the COVID-19 Crisis. In 2021 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining. IEEE. PDF
  - 2020 Ziems, C., Vigfusson, Y., & Morstatter, F. (2020) Aggressive, Repetitive, Intentional, ICWSM Visible, and Imbalanced: Refining Representations for Cyberbullying Classification. In Proceedings of the 14th International AAAI Conference on Web and Social Media. PDF.

Honorable Mention for Best Paper Award.

## Experience

- May 2022 **Meta Al Integrity**, Research Intern.
- August 2022 Manager: Alon Halevy

Peers: Jane Yu, Yi-Chia Wang

May 2021 - Meta Al Integrity, Research Intern.

Sep 2021 Manager: Alon Halevy

Peers: Jane Yu, Yi-Chia Wang

August 2020 - Georgia Tech SALT Lab, Graduate Research Assistant.

Present Advisor: Diyi Yang

March 2020 - Georgia Tech CLAWS Research Group, Undergraduate Research Assistant.

May 2020 Advisor: Srijan Kumar

- June 2019 USC/ISI MINDS Research Group, NSF REU Fellow.
- August 2019 Advisor: Fred Morstatter
- June 2018 Stanford InfoLab, NSF REU Fellow.
- August 2018 Advisor: Srijan Kumar
  - PI: Jure Leskovec
- August 2017 Emory Concept Mining Lab, Undergraduate Research Assistant.
  - May 2018 Advisor: Phillip Wolff

# Teaching

- January 2022 CS 6471 Computational Social Science, Graduate Teaching Assistant.

  - May 2022 Co-designed the CS 6471 curriculum
    - Co-designed the course schedule of assigned readings
    - Co-designed project report and presentation rubrics
    - Designed quizzes and bi-weekly reading response questions
    - Graded reports and presentations
- August 2017 Emory Office for Undergraduate Education, EPASS Peer Tutor.
  - May 2018 Worked one-on-one with 10 to 20 different undergraduates each semester
    - Explained Calculus I and II concepts, designed problem sets, and offered individual feedback

# Mentoring

- Fall 2023 **Vyoma Raman**, Stanford University (M.S.)
  - Present Topic: Power Dynamics in NLP Benchmarking
- Fall 2023 **Seong Hee Lee**, *Stanford University* (M.S.)
  - Present Topic: LLM Social Skill Learning
- Summer 2023 **Chijioke Mgbahurike**, *Stanford University* (B.S.)
  - Present Topic: Dialectal Bias in ASR Systems
    - Result: One presentation at the INSPiRE Research Poster Session.
  - Fall 2022 Julia Kruk, Georgia Institute of Technology (M.S.)
- Summer 2023 Topic: Computational Aesthetics and Photojournalism
  - Results: One EMNLP 2023 Paper.
- Spring 2022 **Aryan Pariani**, Georgia Institute of Technology (B.S.)
- Spring 2023 Topic: Pragmatic Reasoning in Language Games
  - Results: One ACL 2023 Findings Publication.
- Spring 2021 Minzhi (Ella) Li, National University of Singapore (B.S., Ph.D)
- Summer 2023 *Topic:* Positive Reframing; Human-LLM Co-Annotation
  - Results: One ACL 2022 Outstanding Paper Award; One EMNLP 2023 Paper.
  - Fall 2021 Taiwei Shi, Georgia Institute of Technology (B.S.)
  - Spring 2022; Topics: Dialect-Aware NLP; Human-LLM Co-Annotation
- Summer 2023 Results: Undergraduate Thesis; One EMNLP 2023 Paper.

#### Awards and Honors

- Dec 2022 Honorable Mention for Best Project, CS 7643 Deep Learning @ Georgia Tech.
- May 2022 **Outstanding Paper**, ACL 2022.
- March 2021 NSF Graduate Research Fellowship.

- June 2020 Honorable Mention for Best Paper, ICWSM 2020.
- May 2020 Summa Cum Laude, Emory University Computer Science Department.
- May 2020 Academic Excellence Award, Emory University Computer Science Department.
- November Phi Beta Kappa.
  - 2018 Elected as a Junior
- August 2017 Norman C. and Henry J. Miller Dean's Achievement Scholarship.

\$30,000 scholarship recognizing academic achievement, leadership, and community involvement

#### Skills

- Crowdsourcing Amazon Mechanical Turk, Prolific, Upwork
  - Languages Python, MATLAB, R, Java, C, Prolog, Scheme (LISP), JavaScript
    - Libraries PyTorch, scikit-learn, NumPy, Pandas, spaCy, NetworkX, BeautifulSoup
    - Software Bash, Vim, Gephi, Jupyter, Eclipse
      - Tools HTML/CSS, PostgreSQL, Github, LATEX, Slurm

## Service

- Reviewing ACM CSCW (2021);
  - ACL / ARR Review (2021, 2022, 2023)
- Volunteer EMNLP (2021); ACL (2023)

# Talks and Miscellanea

- October 9, Speaker at the AWS Responsible Al Group.
  - 2023 Talk: Multi-VALUE: A Framework for Cross-Dialectal English NLP
- June 19, 2023 **Speaker** at the Summer Institutes in Computational Social Science (SICSS). *Talk:* Can Large Language Models Transform Computational Social Science?
  - October 4, Panel Member for CS 7001 Introduction to Graduate Studies at Georgia Tech.
    - 2022 Topic: National Fellowships
  - February 24, Student Host for Yian Yin, Faculty Candidate in the School of Interactive Computing
    - 2022 Topic: Science of Science and Network Science
  - February 14, Speaker at IST-Unbabel Seminar
    - 2022 Talk: Social NLP for Positive and Civil Interactions
- November 17, Guest Lecturer for CS 4650 Natural Language Processing at Georgia Tech
  - 2021 *Topic:* Dialect-Aware NLP + Computational Social Science
  - October 5, Panel Member for CS 7001 Introduction to Graduate Studies at Georgia Tech.
    - 2021 Topic: National Fellowships