Caleb Ziems

Curriculum Vitae

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*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

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

2023 EMNLP   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

2023 ACL   **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 ACL   **Ziems, C.**, Dwivedi-Yu, J., Wang, Y., Halevy, A. Y., & Yang, D. (2023). NormBank: A Knowledge Bank of Situational Social Norms. In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics. PDF

2023 ACL Findings   Shaikh, O.*, **Ziems, C.***, Held, W., Pariani, A. J., Morstatter, F., & Yang, D. (2023). Modeling Cross-Cultural Pragmatic Inference with Codenames Duet. In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics: Findings. PDF

2023 ACL Findings   Held, W., **Ziems, C.**, & Yang, D. (2023). TADA: Task-Agnostic Dialect Adapters for English. In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics: Findings. PDF

2022 **ACL**	**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 **ACL**	**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
2022 **ACL**	**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.
2021 **EMNLP**	**Ziems, C.***, ElSherief, M.*, Muchlinski, D., Anupindi, V., Seybolt, J., De Choudhury, 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 **EMNLP** *Findings*	**Ziems, C.**, Yang, D. (2021). To Protect and To Serve? Analyzing Entity-Centric Framing of Police Violence. In Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing: Findings. PDF
2021 **ASONAM**	He, B., **Ziems, C.**, Soni, S., Ramakrishnan, N., Yang, D., & Kumar, S. (2021). Racism 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 **ICWSM**	**Ziems, C.**, Vigfusson, Y., & Morstatter, F. (2020) Aggressive, Repetitive, Intentional, 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.

▬▬▬ Pre-prints

2023 Pre-Print	**Ziems, C.**, Held, W., Shaikh, O., Chen, J., Zhang, Z., & Yang, D. (2023) Can Large Language Models Transform Computational Social Science? PDF.

▬▬▬ Experience

May 2022 - August 2022	**Meta AI Integrity**, *Research Intern*. Manager: Alon Halevy Peers: Jane Yu, Yi-Chia Wang
May 2021 - Sep 2021	**Meta AI Integrity**, *Research Intern*. Manager: Alon Halevy Peers: Jane Yu, Yi-Chia Wang
August 2020 - Present	**Georgia Tech SALT Lab**, *Graduate Research Assistant*. Advisor: Diyi Yang
March 2020 - May 2020	**Georgia Tech CLAWS Research Group**, *Undergraduate Research Assistant*. Advisor: Srijan Kumar

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

Teaching

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

- 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 - May 2018	**Emory Office for Undergraduate Education**, *EPASS Peer Tutor*.

- 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 - Present	**Vyoma Raman**, *Stanford University* (M.S.) *Topic:* Power Dynamics in NLP Benchmarking
Fall 2023 - Present	**Seong Hee Lee**, *Stanford University* (M.S.) *Topic:* LLM Social Skill Learning
Summer 2023 - Present	**Chijioke Mgbahurike**, *Stanford University* (B.S.) *Topic:* Dialectal Bias in ASR Systems *Result:* One presentation at the INSPiRE Research Poster Session.
Fall 2022 - Summer 2023	**Julia Kruk**, *Georgia Institute of Technology* (M.S.) *Topic:* Computational Aesthetics and Photojournalism *Results:* One EMNLP 2023 Paper.
Spring 2022 - Spring 2023	**Aryan Pariani**, *Georgia Institute of Technology* (B.S.) *Topic:* Pragmatic Reasoning in Language Games *Results:* One ACL 2023 Findings Publication.
Spring 2021 - Summer 2023	**Minzhi (Ella) Li**, *National University of Singapore* (B.S., Ph.D) *Topic:* Positive Reframing; Human-LLM Co-Annotation *Results:* One ACL 2022 Outstanding Paper Award; One EMNLP 2023 Paper.
Fall 2021 - Spring 2022; Summer 2023	**Taiwei Shi**, *Georgia Institute of Technology* (B.S.) *Topics:* Dialect-Aware NLP; Human-LLM Co-Annotation *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 2018	**Phi Beta Kappa**. 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, 2023	**Speaker** at the AWS Responsible AI Group. *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, 2022	**Panel Member** for CS 7001 Introduction to Graduate Studies at Georgia Tech. *Topic:* National Fellowships
February 24, 2022	**Student Host** for Yian Yin, Faculty Candidate in the School of Interactive Computing *Topic:* Science of Science and Network Science
February 14, 2022	**Speaker** at IST-Unbabel Seminar *Talk:* Social NLP for Positive and Civil Interactions
November 17, 2021	**Guest Lecturer** for CS 4650 Natural Language Processing at Georgia Tech *Topic:* Dialect-Aware NLP + Computational Social Science
October 5, 2021	**Panel Member** for CS 7001 Introduction to Graduate Studies at Georgia Tech. *Topic:* National Fellowships