# Ananya Ganesh

ananyaganesh.github.io

# EDUCATION

University of Colorado, Boulder

Boulder, CO

PhD Student, Computer Science

Aug 2020 - Present

Email: ananya.ganesh@colorado.edu

Advised by: Prof. Katharina von der Wense and Prof. Martha Palmer

Research interests: NLP for Education, Dialog systems, Low-resource NLP

University of Massachusetts, Amherst

Amherst, MA

Master of Science in Computer Science

Aug 2017 - May 2019

Anna University

Chennai, India

Bachelor of Engineering in Computer Science

Aug 2013 - Jun 2017

#### Publications

- Ananya Ganesh, Chelsea Chandler, Sidney D'Mello, Martha Palmer, Katharina von der Wense. Prompting as Panacea? A Case Study of In-Context Learning Performance for Qualitative Coding of Classroom Dialog In Proceedings of the 17th International Conference on Educational Data Mining, pages 835–843, Atlanta, Georgia. (EDM 2024)
- Shamya Karumbaiah, Ananya Ganesh, Aayush Bharadwaj, Lucas Anderson. Evaluating Behaviors of General Purpose Language Models in a Pedagogical Context In International Conference on Artificial Intelligence in Education pp. 47-61. (AIED 2024)
- Ananya Ganesh, Marine Carpuat, William Chen, Katharina Kann, Constantine Lignos, John E Ortega, Jonne Saleva, Shabnam Tafreshi, Rodolfo Zevallos. Findings of the CoCo4MT 2023 Shared Task on Corpus Construction for Machine Translation In Proceedings of the 2nd Workshop on Corpus Generation and Corpus Augmentation for Machine Translation (CoCo4MT 2023)
- Ananya Ganesh, Jie Cao, Margaret Perkoff, Rosy Southwell, Martha Palmer, Katharina Kann. Mind the Gap between the Application Track and the Real World. In Proceedings of the 61st Annual Meeting of the Association for Computational Linquistics (Volume 2: Short Papers) (pp. 1833-1842).
- Ananya Ganesh, Martha Palmer, Katharina Kann. A Survey of Challenges and Methods in the Computational Modeling of Multi-Party Dialog. In Proceedings of the 5th Workshop on NLP for Conversational AI (NLP4ConvAI 2023) (pp. 140-154).
- Ananya Ganesh, Michael Chang, Rachel Dickler, Jon Cai, Michael Regan, Kristin Wright-Bettner, James Pustejovsky, James Martin, Jeff Flanigan, Martha Palmer, Katharina Kann. Navigating Wanderland: Highlighting Off-Task Discussions in Classrooms. In International Conference on Artificial Intelligence in Education (pp. 727-732). (AIED 2023) (Acceptance rate: 21.11%)
- Jie Cao, Ananya Ganesh, Jon Cai, Rosy Southwell, Margaret Perkoff, Michael Reagan, Katharina Kann, James Martin, Martha Palmer, and Sidney D'Mello. A Comparative Analysis of Automatic Speech Recognition Errors in Small Group Classroom Discourse. In Proceedings of the 31st ACM Conference on User Modeling, Adaptation and Personalization (pp. 250-262) (UMAP 2023)
- Rajat Bhatnagar\*, Ananya Ganesh\*, Katharina Kann. CHIA: CHoosing Instances to Annotate for Machine Translation. In Findings of the Association for Computational Linguistics: EMNLP 2022, pages 7299-7315 (\*=Equal Contribution)
- Aparna Garimella, Abhilasha Sancheti, Vinay Aggarwal, Ananya Ganesh, Niyati Chayya, Nandakishore Khambatla. Text Simplification for Legal Domain: Insights and Challenges In Proceedings of the Natural Legal Language Processing Workshop 2022 (pp. 296-304)

- Ananya Ganesh, Hugh Scribner, Jasdeep Singh, Katherine Goodman, Jean Hertzberg, Katharina Kann. Response Construct Tagging: NLP-Aided Assessment for Engineering Education. In *Proceedings of the 17th Workshop on Innovative Use of NLP for Building Educational Applications (BEA 2022) (pp. 250-261).*
- Ananya Ganesh, Martha Palmer, Katharina Kann. What Would a Teacher Do? Predicting Future Talk Moves. In Findings of the Association for Computational Linguistics: ACL-IJCNLP 2021 (pp. 4739-4751).
- Rajat Bhatnagar, Ananya Ganesh, Katharina Kann. Don't Rule Out Monolingual Speakers: A Method For Crowdsourcing Machine Translation Data. In Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 2: Short Papers) (pp. 1099-1106).
- Goran Glavaš, **Ananya Ganesh**, Swapna Somasundaran. Training and Domain Adaptation for Supervised Text Segmentation. In *Proceedings of the 16th Workshop on Innovative Use of NLP for Building Educational Applications (pp. 110-116)*
- Emma Strubell, **Ananya Ganesh**, Andrew McCallum. Energy and Policy Considerations for Deep Learning in NLP. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (pp. 3645-3650)*.
- Haw-Shiuan Chang, Amol Agarwal, **Ananya Ganesh**, Anirudha Desai, Vinayak Mathur, Alfred Hough, and Andrew McCallum. Efficient graph-based word sense induction by distributional inclusion vector embeddings. In *Proceedings of the Twelfth Workshop on Graph-Based Methods for Natural Language Processing* (TextGraphs-12) (pp. 38-48)

## AWARDS & HONORS

- Bell Family Foundation Outstanding Research Award (\$1000)
- CRA-W Grad Cohort 2023 Travel Funding (Fully Funded)
- Trainee Grant Award for the research proposal "Evaluating the Feasibility of Neural Dialog Systems in Classroom Settings" (\$2500, awarded by the NSF AI Institute for Student-AI Teaming)
- Nelson A. Prager Family and James H. Martin Endowed Graduate Fellowship 2021 (\$1000)
- CU Boulder Fall 2021 Publication Recognition Award (\$200)
- Madrona Top Impact Prize in ML & NLP 2019 (with Emma Strubell and Andrew McCallum)
- CU Boulder Dean's Summer 2021 Research Fellowship (\$6000)
- JASSO Scholarship for study in Japan 2016 (JPY 80,000 = \$800)

#### EXPERIENCE

Oracle Labs

Broomfield, CO

Research Intern, Machine Learning
May 2024 – Aug 2024
Investigated the impact of the bootstrapping process on large language model reasoning. Proposed and implemented an approach to improve bootstrapping by identifying high-impact seed rationales.

Adobe Research Bangalore, India

Research Intern, Natural Language Processing

May 2021 – Aug 2021

Designed and implemented a three-step pipeline to reformulate contract clauses to simple English text.

Experimented with state-of-the-art text simplification and summarization algorithms to perform zero-shot clause reformulation.

#### **Educational Testing Service**

Princeton, NJ

Asst. Research Engineer, NLP & Speech Group

Supported research in natural language processing for educational technology by collaborating with research scientists. Investigated problems including interpretability of neural models for short answer scoring, and extraction of coherent passages from text for assessment development.

# Teaching

- Graduate Part-Time Instructor (GPTI) for the undergraduate-level course CSCI 3832: Introduction to Natural Language Processing, Spring 2024
- Guest Lecturer on the topic Bias and Ethics in NLP for CSCI 3832, Spring 2023
- Teaching Assistant for the undergraduate-level course CSCI 2247: Data Structures and Algorithms, Fall 2020

## SERVICE & OUTREACH

- Graduate representative, CU Boulder Executive Committee 2024-2025
- CU Boulder Graduate Application Mentor 2023
- Tech Girls job shadow host, 2023
- Co-organizer for The Second Workshop on Corpus Generation and Corpus Augmentation for Machine Translation @ MT Summit 2023
- Captioning co-chair, ACL 2020 Virtual Conference
- Graduate co-chair, UMass Amherst CS Women's Group (2018)
- Reviewer, NLP4ConAI 2024, AAAI 2024, EMNLP 2023, ACL 2023, BEA 2023, AAAI 2023, EMNLP 2022, EMNLP 2021, BEA 2020, EMNLP 2020, WWW 2019