





Melanie Subbiah

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Education

- 2020 – present  **Ph.D. Computer Science, Columbia University** (*in progress*)
Topic: Computational understanding of subtext in writing
Advisor: Kathleen McKeown
- 2020 – 2024  **M.Phil. Computer Science, Columbia University**
Completed as part of PhD.
- 2020 – 2022  **M.S. Computer Science, Columbia University**
Completed as part of PhD.
- 2013 – 2017  **B.A. Computer Science, Williams College**, Magna Cum Laude, Phi Beta Kappa
Thesis: *Using Text Abstraction and LSTM Language Models for Domain-Independent Narrative Generation*
Advisor: Andrea Danyluk

Work Experience

- 2021-2023  **Columbia University** New York, NY
Graduate Research Assistant
Research in Kathleen McKeown's lab as part of my PhD.
- (Jun.–Aug.) 2022  **Meta** New York, NY
Machine Learning Research Intern - AI for Augmented Reality Input & Interaction
Deep learning to interpret EMG data for human-computer neural interfaces.
- 2019 – 2020  **OpenAI** San Francisco, CA
Member of Technical Staff - Language
Evaluation suite for GPT-3, co-first-author on the GPT-3 paper (Language Models are Few-Shot Learners).
- 2017 – 2019  **Apple** Cupertino, CA
Machine Learning Engineer - AI Research
Data center HVAC efficiency, reward function design for autonomous systems, domain randomization for sim-to-real transfer in computer vision, and effective QA methods for crowdsourced annotated data.
- (Jun.–Aug.) 2016  **Facebook** Menlo Park, CA
Software Engineer Intern - Site Efficiency
Internal C++ tool to monitor/visualize the efficiency of multi-threaded functions.
- (Jun.–Aug.) 2015  **Fathom Information Design** Boston, MA
Data Science Intern - Activity Characterization
Clustering and visualizing activity patterns in daily movement data from wearables.
- (Jun.–Aug.) 2014  **Dartmouth College** Hanover, NH
Research Assistant - Epidemiology
Statistical analysis for study of in utero arsenic exposure.

Honors and Awards

- 2025
 - **Best Paper** (for papers published in 2024), *TACL*
Awarded for my first-author paper, "Reading Subtext: Evaluating Large Language Models on Short Story Summarization with Writers."
- 2024
 - **Outstanding Reviewer**, *EMNLP*
Recognized as an outstanding reviewer for my thoughtful reviews and productive discussion with authors.
 - **Most Influential Scholar Award Honorable Mention**, *AMiner AI 2000*
Recognized as a top 100 most impactful machine learning scholar between 2014 and 2023.
- 2023
 - **Top 100 AI Achievements from 1943-2021**, *BenchCouncil AI100*
Recognized for my work on the GPT series of models.
 - **PhD Fellowship**, *Amazon/Columbia Center of Artificial Intelligence Technology*
Funding for two years of the PhD awarded by the Columbia/Amazon AI Center.
- 2021
 - **PhD Fellowship Honorable Mention**, *NSF Graduate Research Fellowship Program*
Awarded an honorable mention for my submission.
- 2020
 - **Outstanding Paper**, *NeurIPS*
Awarded for my co-first-author paper, "Language Models are Few-Shot Learners" (GPT-3 paper).
 - **PhD Fellowship**, *Columbia Presidential and SEAS Fellowship*
Columbia University funding award for incoming PhD students.
- 2017
 - **Phi Beta Kappa Student Speaker**, *Williams College Commencement*
Voted by the Phi Beta Kappa students to speak at Williams College graduation.
 - **Highest Honors & Best Colloquium Presentation**, *Williams College Computer Science*
Williams College computer science department awards for the graduating class. Awarded for my work on my senior thesis.
 - **Shorty Story Writing Honorable Mention**, *Williams College Benjamin B. Wainwright Prize*
Williams College writing competition for short stories.

Publications

Conference Proceedings/Findings and Journals

- [TACL 24] Subbiah, M., Zhang, S., Chilton, L. B., & McKeown, K. (2024). Reading Subtext: Evaluating Large Language Models on Short Story Summarization with Writers. In *Transactions of the Association for Computational Linguistics*, MIT Press (**Best Paper Award**).
- [EMNLP 24] Subbiah*, M., Ladhak*, F., Mishra, A., Adams, G., Chilton, L. B., & McKeown, K. (2024). STORYSUMM: Evaluating Faithfulness in Story Summarization. In *Proceedings, Empirical Methods in Natural Language Processing*.
- [ACL 23] Storek, A., Subbiah, M., & McKeown, K. (2023). Unsupervised Selective Rationalization with Noise Injection. In *Proceedings, Association for Computational Linguistics*.
- [ACL 23] Wang, G., Chillrud, L., Harwood, K., Ananthram, A., Subbiah, M., & McKeown, K. (2023). Check-COVID: Fact-Checking COVID-19 News Claims with Scientific Evidence. In *Findings, Association for Computational Linguistics*.
- [EMNLP 22] Levy, S., Allaway, E., Subbiah, M., Chilton, L., Patton, D., McKeown, K., & Wang, W. (2022). SafeText: A Benchmark for Exploring Physical Safety in Language Models. In *Proceedings, Empirical Methods in Natural Language Processing*.
- [EMNLP 22] Mei, A., Kabir, A., Levy, S., Subbiah, M., Allaway, E., Judge, J., ... Wang, W. (2022). Mitigating Covertly Unsafe Text within Natural Language Systems. In *Findings, Empirical Methods in Natural Language Processing*.

- [NeurIPS 20] Brown*, T., Mann*, B., Ryder*, N., **Subbiah*, M.**, Kaplan, J. D., Dhariwal, P., ... Amodei, D. (2020). Language Models are Few-Shot Learners. In *Proceedings, Neural Information Processing Systems (Outstanding Paper Award)*.
- [PLOSone 17] Nygaard, U., Li, Z., Palys, T., Jackson, B., **Subbiah, M.**, Malipatlolla, M., ... Nadeau, K. (2017). Cord blood T cell subpopulations and associations with maternal cadmium and arsenic exposures, PLoS One.

Refereed Workshops

- [ARP Symposium 25] Mayukha, A., **Subbiah, M.**, Guzman, A., Jitklongsab, S., & McAdams, D. (2025). *Methodological Approaches to the Analysis of Life Story Interviews*. Symposium at the Association for Research in Personality conference (ARP).
- [WASSA ACL 23] **Subbiah*, M.**, Bhattacharjee*, A., Hua, Y., Kumarage, T., Liu, H., & McKeown, K. (2023). *Detecting Harmful Agendas in News Articles*. WASSA Workshop at ACL.
- [IWSS ICSWM 21] **Subbiah, M.**, & McKeown, K. (2021). *Understanding Identity Signalling in Persuasive Online Text*. International Workshop on Social Sensing at ICWSM.
- [WiML NeurIPS 18] Maher, M., **Subbiah, M.**, & Apostoloff, N. (2018). *Cascaded Dataset QA*. Women in Machine Learning at NeurIPS.
- [WiML NeurIPS 18] **Subbiah, M.**, Lesser, J., & Apostoloff, N. (2018). *Augmenting Training Data with Simulated Images*. Women in Machine Learning at NeurIPS.

Other Articles and Preprints

- [in submission 25] Gupta, M., Varimalla, N. R., Deas, N., **Subbiah, M.**, & McKeown, K. (2025). *AdvSumm: Adversarial Training for Bias Mitigation in Text Summarization*. arXiv.
- [in submission 25] Hall, Z., **Subbiah*, M.**, Zollo*, T., McKeown, K., & Zemel, R. (2025). *Guiding LLM Decision-Making with Fairness Reward Models*.
- [in submission 25] Limpijankit, M., Chen, Y., **Subbiah, M.**, Deas, N., & McKeown, K. (2025). *Counterfactual Simulatability of LLM Explanations for Generation Tasks*. arXiv.
- [in submission 25] **Subbiah, M.**, Mishra, A., Grace Kim, L. T., Durrett, G., & McKeown, K. (2025). *Is the Top Still Spinning? Evaluating Subjectivity in Narrative Understanding*. arXiv.

Patents

- [patent 22] **Subbiah, M.**, Lesser, J., & Apostoloff, N. (2022). *Training with Simulated Images*. No. US 11,256,958 B1, Apple, Inc.

*indicates equal contribution

Teaching

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|-------------|---|
| Spring 2024 | <ul style="list-style-type: none"> • Guest Lecture, <i>Global Teaching Labs - Uruguay</i>
Taught by Yi-Tong Tseo, MIT & University of Montevideo |
| Fall 2023 | <ul style="list-style-type: none"> • Teaching Assistant & Guest Lecture, <i>Natural Language Generation and Summarization</i>
Taught by Kathleen McKeown, Columbia University
TA Quality Overall: 4.7/5.0 |

Teaching (continued)

- Summer 2023
 - **Instructor**, *Discrete Mathematics*
Columbia University
Course Quality Overall: 4.2/5.0, Instructor Quality Overall: 4.5/5.0
- Spring 2023
 - **Guest Lecture**, *Computational Journalism*
Taught by Mark Hansen, Columbia University
- Fall 2022
 - **Teaching Assistant & Guest Lecture**, *Natural Language Generation and Summarization*
Taught by Kathleen McKeown, Columbia University
TA Quality Overall: 4.9/5.0
- Fall, Spring 2021
 - **Tutor**, *Introductory Computer Science & Discrete Mathematics*
Columbia University Athletics
- Fall 2014 – Spring 2017
 - **Teaching Assistant**, *Introductory Computer Science and/or Data Structures*
Williams College

Invited Speaking

Research Talks and Posters

- 2024
 - **Talk on "StorySumm: Evaluating Faithfulness in Story Summarization"**
Summarization track at EMNLP
 - **Poster on "Reading Subtext: Evaluating LLMs on Short Story Summarization with Writers"**
Summarization track at EMNLP
 - **Talk on "How did we get here?: The rise of large language models and the problem of evaluation"**
Computer Science Colloquium at Williams College
- 2023
 - **Talk on "Detecting Harmful Agendas in News Articles"**
WASSA Workshop at ACL
- 2021
 - **Talk on "Understanding Identity Signalling in Persuasive Online Text"**
International Workshop on Social Sensing at ICWSM
- 2020
 - **Talks on "Language Models are Few-Shot Learners"**
New York University, seminar series
Stanford University, NLP seminar series
Columbia University, NLP seminar series
Philosophy and Machine Learning Conference at New York University
G-Research, lecture series
 - **Computer Science colloquium on Language Models**
Williams College
- 2018
 - **Poster on "Augmenting Training Data with Simulated Images"**
Women in Machine Learning Workshop at NeurIPS

Outreach Talks

- 2024
 - **Research Overview: Language Models**
Stuyvesant High School's research class
- 2023
 - **Half-day interactive seminar on ChatGPT for educators**
Academy for Teachers' Master Class for 25 high school teachers and librarians
 - **Interview on "Artificial: Episode 2, Selling Out"**
The Wall Street Journal's "The Journal" podcast (a top 10 daily news podcast in the US)

Invited Speaking (continued)

- **Talk on "NLP with ChatGPT"**
Pearson Publishing's AI Catalyst Conference
- **Talk on "ChatGPT: What is it, how does it work, and what's next?"**
Columbia University Council of Deans
Columbia University Faculty
- 2022 • **Guest for "GPT-3 for Natural Language Processing."**
SuperDataScience podcast (50,000 listens)
- 2021 • **Interview on "5 Levels of Difficulty: Machine Learning"**
Wired Magazine YouTube video (2 million views)
- 2017 • **Phi Beta Kappa Student Speaker**
Williams College Commencement (~2,000 attendees)

Consulting

- 2024 • **Advisor, Early-stage startups**
Scoping and testing technical requirements for customers of a cost effective green data center solution (BuildAI). Advising on models for educational children's story generation (Nookly).
- 2023 • **Red Teamer, GPT-4**
Member of the expert Red Team who helped test GPT-4 for risks pre-release.
- **Reviewer, Quick Start Guide to Large Language Models**
Provided expert technical feedback on this guide for professionals written by Sinan Ozdemir and published by Pearson.

Service

- 2025 • **Reviewer, ACL/COLM/ARR**
- 2024 • **Reviewer, ACL/EMNLP/COLING/ARR**
- 2023 • **Panelist, Columbia Engineering School Graduate Council info panel on PhD programs**
- 2022 • **Reviewer, EMNLP**
 - **Reviewer, In2Writing Workshop @ ACL**
 - **Reviewer, Columbia Pre-submission Application Review program for underrepresented candidates**
- 2021 • **Co-organizer, Workshop on Enormous Language Models at ICLR**
- 2020 • **Reviewer, Columbia Pre-submission Application Review program for underrepresented candidates**
 - **Talk, Columbia's "Demystifying the Dissertation" talk series for undergrads**
- 2019 • **Reviewer, Bay Area Machine Learning symposium**

Mentoring

- 2021 – present
 - **Research Mentor**, *Columbia University research students*
 - Haaris Mian (Masters)
 - Marvin Limpijankit (Masters) → paper in submission, Columbia CS PhD
 - Zara Hall (Undergrad) → paper in submission, Columbia CS Masters
 - Mukur Gupta and Nikhil Varimalla (Masters) → paper in submission, Granica
 - Jacklyn Tsai (Undergrad) → Senior Thesis, Amazon AWS SWE
 - Akankshya Mishra (Masters) → EMNLP paper, paper in submission, Google Gemini MLE
 - Sean Zhang (Masters) → TACL paper (Best Paper Award), CapitalOne SWE
 - Kate Harwood (Masters) → ACL Findings paper, NLP freelancing
 - Adam Storek (Undergrad) → ACL paper, Columbia CS PhD
 - Bobby Yilun Hua (Undergrad) → WASSA workshop paper, Cornell CS PhD
 - Yu-Chen Huang (Undergrad) → Amazon SWE
- 2022
 - **Mentor**, *Williams College CS undergraduate buddy program*
- 2021
 - **Research Mentor**, *Lumiere Education's high school student research program*
- 2020
 - **Program Organizer & Research Mentor**, *OpenAI Scholars (ML transition program)*
- 2019
 - **Mentor**, *Institute of International Education TechWomen program*
- 2016 – 2017
 - **Leader**, *Williams College Underrepresented Identities in CS group*