Nishant Balepur

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Research Summary

I am a computer science Ph.D. <u>candidate</u> at the University of Maryland, advised by Professors Jordan Boyd-Graber and Rachel Rudinger. I mostly work in Natural Language Processing, with a sprinkle of Human-Computer Interaction and Machine Learning. I am broadly interested in building text generation and question answering systems that help users achieve their goals, with a focus on improving factuality, reasoning, preference learning, alignment, and evaluations.

EDUCATION

University of Maryland, College Park (UMD)

College Park, MD

Aug 2023 - May 2027 (Expected)

Ph.D. Computer Science; GPA: 4.00/4.00

Advisors: Jordan Boyd-Graber, Rachel Rudinger

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Thesis (Proposed): Teaching AI to Answer Questions with Reasoning that Actually Helps You Committee: Jordan Boyd-Graber, Rachel Rudinger, Shi Feng, Fumeng Yang, David Weintrop

New York University

New York City, NY

Visiting Student **Host:** Eunsol Choi Aug 2025 - May 2026

University of Illinois at Urbana-Champaign (UIUC)

Urbana, IL

B.S. Computer Science; B.S. Statistics (Dual Degree); GPA: 4.00/4.00

Aug 2019 - May 2023

Conference Papers

* denotes equal contribution, † denotes mentored student

1. Language Models Don't Know What You Want: Evaluating Personalization in Deep Research Needs Real Users Under Review (ARR)

Nishant Balepur, Sergey Feldman, ..., Joseph Chee Chang, Eunsol Choi, Jordan Boyd-Graber, Aakanksha Naik

2. Test-Time Reasoners Are Strategic Multiple-Choice Test-Takers

Under Review (ARR)

Nishant Balepur, Atrey Desait, Rachel Rudinger

3. Measuring Users' Mental Models of Speech Translation in Human-MT Collaboration Under Review (ARR)

Hyojung Han, Nishant Balepur, Jordan Boyd-Graber, Marine Carpuat

4. AstaBench: Rigorous Benchmarking of AI Agents with a Holistic Scientific Research Suite Under Review (ICLR)

Jonathan Bragg*, Mike D'Arcy*, Nishant Balepur, ..., Yoav Goldberg, Ashish Sabharwal, Daniel S. Weld

5. A Good Plan is Hard to Find: Aligning Models with Preferences is Misaligned with What Helps Users EMNLP 2025

Nishant Balepur, Matthew Shut, ..., Shi Feng, Fumeng Yang, Rachel Rudinger, Jordan Boyd-Graber Selected: We show optimizing on user/LLM judgments and agents simulations all fail to capture what helps users

6. Which of These Best Describes Multiple Choice Evaluations? A) Forced B) Flawed C) Fixable D) All of the Above ACL 2025, Oral, Best Paper Nomination, Best Paper Award at MASC-SLL 2025

Nishant Balepur, Rachel Rudinger, Jordan Boyd-Graber

Selected: We critique multiple-choice evaluations with LLMs, and propose solutions from education to remedy them

7. Whose Boat Does it Float? Improving Personalization in Preference Tuning via Inferred User Personas ACL 2025

Nishant Balepur, Vishakh Padmakumar, Fumeng Yang, Shi Feng, Rachel Rudinger, Jordan Boyd-Graber

8. Reverse Question Answering: Can an LLM Write a Question so Hard (or Bad) that it Can't Answer? NAACL 2025, Oral

Nishant Balepur, Feng Gu, Abhilasha Ravichander, Shi Feng, Jordan Boyd-Graber, Rachel Rudinger

9. MoDS: Moderating a Mixture of Document Speakers to Summarize Debatable Queries in Document Collections NAACL 2025, Oral

Nishant Balepur, Alexa Siu, Nedim Lipka, Franck Dernoncourt, Tong Sun, Jordan Boyd-Graber, Puneet Mathur

10. A Smart Mnemonic Sounds like Glue Tonic: Mixing LLMs with Student Feedback to Make Mnemonic Learning Stick EMNLP 2024

Nishant Balepur, Matthew Shu, Alexander Hoyle, ..., Shi Feng, Seraphina Goldfarb-Tarrant, Jordan Boyd-Graber Selected: We use DPO to generate mnemonics aligned with what users prefer and aid learning

11. KARL: Knowledge-Aware Retrieval and Representations aid Retention and Learning in Students EMNLP 2024

Matthew Shu*†, Nishant Balepur*, Shi Feng*, Jordan Boyd-Graber

12. Plausibly Problematic Questions in Multiple-Choice Benchmarks for Commonsense Reasoning EMNLP 2024 (Findings)

Shramay Palta, Nishant Balepur, Peter Rankel, Sarah Wiegreffe, Marine Carpuat, Rachel Rudinger

13. Artifacts or Abduction: How Do LLMs Answer Multiple-Choice Questions Without the Question? ACL 2024, Best Paper Award at MASC-SLL 2024

Nishant Balepur, Abhilasha Ravichander, Rachel Rudinger

Selected: We discover LLMs score highly in MCQA benchmarks without the question, and analyze how

14. It's Not Easy Being Wrong: Large Language Models Struggle with Process of Elimination Reasoning ACL 2024 (Findings)

Nishant Balepur, Shramay Palta, Rachel Rudinger

15. The Prompt Report: A Systematic Survey of Prompting Techniques

Preprint, Huggingface #1 Paper of the Day

Sander Schulhoff*, Michael Ilie*, Nishant Balepur, ..., Shyamal Anadkat, Alexander Hoyle, Phillip Resnik

16. Expository Text Generation: Imitate, Retrieve, Paraphrase

EMNLP 2023, On UIUC's AI Reading List for Qualifying Exams

Nishant Balepur, Jie Huang, Kevin Chen-Chuan Chang

17. Text Fact Transfer

EMNLP 2023

Nishant Balepur, Jie Huang, Kevin Chen-Chuan Chang

18. DynaMiTE: Discovering Explosive Topic Evolutions with User Guidance ACL 2023 (Findings)

Nishant Balepur*, Shivam Agarwal*, Karthik Ramanan, Susik Yoon, Diyi Yang, Jiawei Han

WORKSHOP PAPERS

* denotes equal contribution, † denotes mentored student

1. Can They Dixit? Yes they Can! Dixit as a Playground for Multimodal Language Model Capabilities Wordplay @ EMNLP 2025, Spotlight

Nishant Balepur*, Dang Nguyen*, Dayeon Ki*

2. Mitigating Gender-Occupation Stereotypes in Llama through Consistency-Guided Finetuning Under Review

Haozhe An, Nishant Balepur, Christabel Acquaye, Rachel Rudinger

3. A Survey on LLM Jailbreaking Attacks and Defenses

Under Review

Sander Schulhoff*, Nishant Balepur*, Arjun Akkiraju*, Michael Ilie*, ..., Rob Voigt, Denis Peskoff

 ${\it 4. \ Language \ Models \ Generate \ Multiple-Choice \ Questions \ with \ Artifacts}$

MASC-SLL 2025

Atrey Desait, Nishant Balepur, Rachel Rudinger

 Mental Model for Machine Translation in Human-MT Scenario MASC-SLL 2025

Hyojung Han, Nishant Balepur, Jordan Boyd-Graber, Marine Carpuat

6. Is Your Large Language Model Knowledgeable or a Choices-Only Cheater?

KnowLM @ ACL 2024

Nishant Balepur, Rachel Rudinger

Industry Research Experience

Allen Institute for AI (Ai2)

Research Scientist Intern: Semantic Scholar (Personalized Deep Research)
Outcome: Two paper submissions

Adobe
San Jose, CA
Research Scientist Intern: Document Intelligence (Multi-LLM QA)

May 2025 - Aug 2025

San Jose, CA
May 2024 - Aug 2024

Seattle, WA

May 2022 - Aug 2022

Outcome: Patent Submission, Paper at NAACL 2025

Meta

Menlo Park, CA

Software Engineering Intern: Facebook Creators Well-being (Comment Safety) Outcome: 15% drop in negative interactions among Facebook's 1 billion users

STARTUP EXPERIENCE

LearnPrompting Contractor: Co-leading research team on LLM jailbreak competitions Designing harmfulness evaluations for HackAPrompt, lead author on two papers XpertNetwork Consultant: Technical advice for startup using LLMs for expert network outreach	Remote Nov 2024 - Present New York City May 2025 - Present
Designing harmfulness evaluations for HackAPrompt, lead author on two papers XpertNetwork	New York City
nvited Talks	
Which of These Best Describes Multiple-Choice Evaluation with LLMs? ACL 2025	Vienna, Austria Aug 2025
Can an LLM Write a Question so Hard (or Bad) that it Can't Answer? NAACL 2025	Albuquerque, NM May 2025
MoDS: Summarizing Debatable Queries in Document Collections NAACL 2025	Albuquerque, NM May 2025
Which of These Best Describes Multiple-Choice Evaluation with LLMs? Penn State University	State College, PA April 2025
Which of These Best Describes Multiple-Choice Evaluation with LLMs? Google Translate Reading Group	Remote March 2025
Aligning LLMs to Answer Questions with Reasoning That Actually Helps You Imperial College, London	London, U.K March 2025
How Do LLMs Answer Multiple-Choice Questions Without the Question? Johns Hopkins University	Baltimore, MD May 2024
Fellowships and Grants	
NSF Graduate Research Fellowship Program (GRFP) Wrote proposal on NLP for information accessibility—\$159,000 over 3 Years of Ph.D.	April 2023 - April 2028
Cohere for AI Research Grant (2x) Wrote proposals on LLMs Education and HackAPrompt 2.0—full access to Cohere model	
Dean's Fellowship Awarded the Dean's Fellowship from UMD for outstanding academic achievement	April 2023 - April 2025
AWARDS	
MASC-SLL 2025 Best Paper Award Best paper award for our MCQA Position Paper by PSU	April 2025
MASC-SLL 2024 Best Paper Award Best paper award for "Artifacts or Abduction" by JHU	May 2024
UIUC Computer Science Graduation with Highest Honors Recommended by the UIUC computer science department to graduate with highest honor	
C.W. Gear Outstanding Undergraduate Student Awarded to two seniors that have demonstrated excellence in research and service	May 2022
Professional Service	
Conference Reviewer Reviewer for: *ACL/ARR 2023-Present, IEEE TASLP 2024, TrustNLP 2024, SRW 2025 Great Reviewer Nomination: Apr, June (#6), Aug (#4), Oct (#2), Dec 2024, Feb 2025 A Outstanding Reviewer: EMNLP 2024	UMD 2022-2024 ARR
Conference Volunteer	UMD
ACL 2023, NAACL 2025 Visiting Student Day Volunteer Volunteer and ambassador for UMD's visiting student day	2023, 2025 UME Mar 2024, 2025
Winter Storm LLM Workshop Led a 5-day workshop on LLMs for non-CS graduate students	UMI Jan 2023
SIGNLL	UIUC
President of Special Interest Group for Natural Language Learning	Aug 2020 - May 2021

STUDENT MENTEES

- Michael Xie (M.S. UMD), 2025-Present, Personalized LLMs for Education, LLM Evaluation
- Atrey Desai (B.S. UMD), 2024-Present, LLM Evaluation One paper at MASC-SLL 2025 Workshop, One paper under review at ARR
- Matthew Shu (B.S. Yale \rightarrow M.S. Yale), 2023-2025, LLMs for Education, Alignment Two papers at EMNLP 2024 (long, main); one paper at EMNLP 2025 (long, main)
- Jerry He (HS Student \rightarrow B.S. GTech), 2024-2025, LLMs for Education Submitted Project on LLMs+Education for Marriott's Ridge High School Gifted and Talented Research Program