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, learning from human feedback, and evaluations.

EDUCATION

- **University of Maryland, College Park (UMD)** — College Park, MD
  Ph.D. Computer Science; GPA: 4.00/4.00 — Aug 2023 - May 2027 (Expected)
  Advisors: Jordan Boyd-Graber, Rachel Rudinger
  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 — Aug 2025 - May 2026
  Host: Eunsol Choi

- **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. BenchMarker: An Education-Inspired Toolkit for Highlighting Flaws in Multiple-Choice Benchmarks
   Under Review (ACL)
   Nishant Balepur, Bhavya Rajasekaran†, Jane Oh†, Michael Xie†, Atrey Desai†, ..., Jordan Boyd-Graber

2. Language Models Don't Know What You Want: Evaluating Personalization in Deep Research Needs Real Users
   Under Review (ACL)
   Nishant Balepur, Sergey Feldman, ..., Joseph Chee Chang, Eunsol Choi, Jordan Boyd-Graber, Aakanksha Naik

3. Test-Time Reasoners Are Strategic Multiple-Choice Test-Takers
   Under Review (ACL)
   Nishant Balepur, Atrey Desai†, Rachel Rudinger

4. Measuring Users' Mental Models of Speech Translation in Human-MT Collaboration
   Under Review (ACL)
   Hyojung Han, **Nishant Balepur**, Jordan Boyd-Graber, Marine Carpuat

5. 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

6. A Good Plan is Hard to Find: Aligning Models with Preferences is Misaligned with What Helps Users
   EMNLP 2025
   Nishant Balepur, Matthew Shu†, ..., 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

7. 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

8. 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

9. 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

10. 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

11. 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

12. KARL: Knowledge-Aware Retrieval and Representations aid Retention and Learning in Students
    EMNLP 2024
    Matthew Shu*✝, **Nishant Balepur***, Shi Feng*, Jordan Boyd-Graber

13. 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

14. 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

15. It's Not Easy Being Wrong: Large Language Models Struggle with Process of Elimination Reasoning
    ACL 2024 (Findings)
    Nishant Balepur, Shramay Palta, Rachel Rudinger

16. 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

17. 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

18. Text Fact Transfer
    EMNLP 2023
    Nishant Balepur, Jie Huang, Kevin Chen-Chuan Chang

19. 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

4. Language Models Generate Multiple-Choice Questions with Artifacts
   MASC-SLL 2025
   Atrey Desai✝, **Nishant Balepur**, Rachel Rudinger

5. 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

- **Microsoft Research (MSR)**   New York, NY
  Research Intern: AI Interaction and Learning   May 2026 - Aug 2026

- **Allen Institute for AI (Ai2)**   Seattle, WA
  Research Scientist Intern: Semantic Scholar (Personalized Deep Research)   May 2025 - May 2026
  Outcome: Two paper submissions

- **Adobe** — San Jose, CA
  Research Scientist Intern: Document Intelligence (Multi-LLM QA) — May 2024 - Aug 2024
  Outcome: Patent Submission, Paper at NAACL 2025
- **Meta** — Menlo Park, CA
  Software Engineering Intern: Facebook Creators Well-being (Comment Safety) — May 2022 - Aug 2022
  Outcome: 15% drop in negative interactions among Facebook's 1 billion users

INVITED TALKS

- **Which of These Best Describes Multiple-Choice Evaluation with LLMs?** — Vienna, Austria
  ACL 2025 — Aug 2025
- **Can an LLM Write a Question so Hard (or Bad) that it Can't Answer?** — Albuquerque, NM
  NAACL 2025 — May 2025
- **MoDS: Summarizing Debatable Queries in Document Collections** — Albuquerque, NM
  NAACL 2025 — May 2025
- **Which of These Best Describes Multiple-Choice Evaluation with LLMs?** — State College, PA
  Penn State University — April 2025
- **Which of These Best Describes Multiple-Choice Evaluation with LLMs?** — Remote
  Google Translate Reading Group — March 2025
- **Aligning LLMs to Answer Questions with Reasoning That Actually Helps You** — London, U.K.
  Imperial College, London — March 2025
- **How Do LLMs Answer Multiple-Choice Questions Without the Question?** — Baltimore, MD
  Johns Hopkins University — May 2024

FELLOWSHIPS AND GRANTS

- **NSF Graduate Research Fellowship Program (GRFP)** — April 2023 - April 2028
  Wrote proposal on NLP for information accessibility—$159,000 over 3 Years of Ph.D.
- **Cohere for AI Research Grant (2x)** — April 2024
  Accepted proposal on LLM for Education and AI Safety—full access to Cohere models
- **Dean's Fellowship** — April 2023 - April 2025
  Awarded the Dean's Fellowship from UMD for outstanding academic achievement

AWARDS

- **MASC-SLL 2025 Best Paper Award** — April 2025
  Best paper award for our MCQA Position Paper by PSU
- **MASC-SLL 2024 Best Paper Award** — May 2024
  Best paper award for "Artifacts or Abduction" by JHU
- **UIUC Computer Science Graduation with Highest Honors** — May 2023
  Recommended by the UIUC computer science department to graduate with highest honors
- **C.W. Gear Outstanding Undergraduate Student** — May 2022
  Awarded to two seniors that have demonstrated excellence in research and service

STUDENT MENTEES

- **Michael Xie** (M.S. UMD), 2025-Present, Personalized LLMs for Education, LLM Evaluation
  One paper under review at ARR

- **Jane Oh** (B.S. UMD), 2025-Present, LLM Evaluation
  One paper under review at ARR

- **Bhavya Rajasekaran** (B.S. UMD), 2025-Present, LLM Evaluation
  One paper under review at ARR

- **Atrey Desai** (B.S. UMD), 2024-Present, LLM Evaluation
  One paper at MASC-SLL 2025 Workshop, Two papers under review at ARR

- **Matthew Shu** (B.S. Yale → M.S. Yale → ML @ Brain Co.), 2023-2025, LLMs for Education, Alignment
  Two papers at EMNLP 2024 (long, main); one paper at EMNLP 2025 (long, main)

- **Jerry He** (HS Student → B.S. GTech), 2024-2025, LLMs for Education
  Submitted Project on LLMs+Education for Marriott's Ridge High School Gifted and Talented Research Program

Professional Service

- **Conference Reviewer** — UMD, 2022-2024
  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 ARR
  Outstanding Reviewer: EMNLP 2024, EMNLP 2025

- **Conference Volunteer** — UMD, 2023, 2025
  ACL 2023, NAACL 2025

- **Visiting Student Day Volunteer** — UMD, Mar 2024, 2025
  Volunteer and ambassador for UMD's visiting student day

- **Winter Storm LLM Workshop** — UMD, Jan 2023
  Led a 5-day workshop on LLMs for non-CS graduate students

- **SIGNLL** — UIUC, Aug 2020 - May 2021
  President of Special Interest Group for Natural Language Learning