Nishant Balepur

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RESEARCH SUMMARY

I am a computer science Ph.D. student at the University of Maryland, advised by Professors Jordan Boyd-Graber and Rachel Rudinger. I am interested in developing text generation and question answering systems that help users achieve their goals, with a focus on improving factuality, reasoning, preferences-based alignment, and model/dataset 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): Looks Can Be Deceiving: Teaching QA Systems to Reason and Truly Help Users
  Committee: Jordan Boyd-Graber, Rachel Rudinger, Shi Feng, Fumeng Yang

- **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
  Collaborators: Kevin Chen-Chuan Chang, Jiawei Han, Hari Sundaram, Diyi Yang

SELECTED WORKS

- 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
  TL;DR: We use LLM fine-tuning and DPO to generate mnemonics aligned with what users prefer and aid learning

- 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
  TL;DR: We discover that LLMs can obtain high accuracy without the question in MCQA, and analyze how

- Expository Text Generation: Imitate, Retrieve, Paraphrase
  EMNLP 2023
  Nishant Balepur, Jie Huang, Kevin Chen-Chuan Chang
  TL;DR: We design a text generation model using iterative query planning and retrieval to generate expository texts

PUBLICATIONS

* denotes equal contribution, ✝ denotes mentored student

- Which of These Best Describes Multiple Choice Evaluations? A) Forced B) Flawed C) Fixable D) All of the Above
  Under Review (ACL)
  Nishant Balepur, Rachel Rudinger, Jordan Boyd-Graber

- Whose Boat Does it Float? Improving Personalization in Preference Tuning via Inferred User Personas
  Under Review (ACL)
  Nishant Balepur, Vishakh Padmakumar, Fumeng Yang, Shi Feng, Rachel Rudinger, Jordan Boyd-Graber

- Reverse Question Answering: Can an LLM Write a Question so Hard (or Bad) that it Can't Answer?
  NAACL 2025
  Nishant Balepur, Feng Gu, Shi Feng, Abhilasha Ravichander, Jordan Boyd-Graber, Rachel Rudinger

- MoDS: Moderating a Mixture of Document Speakers to Summarize Debatable Queries in Document Collections
  NAACL 2025
  Nishant Balepur, Alexa Siu, Nedim Lipka, Franck Dernoncourt, Tong Sun, Jordan Boyd-Graber, Puneet Mathur

- 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

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

- 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

- The Prompt Report: A Systematic Survey of Prompting Techniques
  Under Review (Nature)
  Sander Schulhoff*, Michael Ilie*, **Nishant Balepur**, ..., Shyamal Anadkat, Alexander Hoyle, Phillip Resnik

- 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

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

- Is Your Large Language Model Knowledgeable or a Choices-Only Cheater?
  ACL 2024 (KnowLLM Workshop)
  Nishant Balepur, Rachel Rudinger

- Expository Text Generation: Imitate, Retrieve, Paraphrase
  EMNLP 2023
  Nishant Balepur, Jie Huang, Kevin Chen-Chuan Chang

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

- DynaMiTE: Discovering Explosive Topic Evolutions with User Guidance
  ACL 2023 (Findings)
  Nishant Balepur*, Shivam Agarwal*, Karthik Ramanan, Susik Yoon, Diyi Yang, Jiawei Han

INDUSTRY RESEARCH EXPERIENCE

Allen Institute for AI (Ai2) Research Scientist Intern: Semantic Scholar	Seattle, WA May 2025 - Aug 2025
Adobe Research Scientist Intern: Document Intelligence (Multi-LLM Summarization) Outcome: Patent Submission, Paper at NAACL 2025	San Jose, CA May 2024 - Aug 2024
Meta Software Engineering Intern: Facebook Creators Well-being (Comment Filtering) Outcome: 15% drop in negative interactions among Facebook's 1 billion users	Menlo Park, CA May 2022 - Aug 2022

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 Program Wrote proposal on LLMs for AI Safety + Education—full access to Cohere models	April 2024
Dean's Fellowship Awarded the Dean's Fellowship from UMD for outstanding academic achievement	April 2023 - April 2025

AWARDS

MASC-SLL 2024 Best Paper Award Selected for one of three best paper awards for "Artifacts or Abduction" by JHU	April 2024
UIUC Computer Science Graduation with Highest Honors Recommended by the UIUC computer science department to graduate with highest honors	May 2023

STUDENT MENTEES

- **Matthew Shu** (B.S. Yale → M.S. Yale), 2023-Present, LLMs for Education
  Two papers at EMNLP 2024 (long, main)

- **Atrey Desai** (B.S. UMD), 2024-Present, Dataset Artifacts

- **Jerry He** (HS Student → B.S. GTech), 2024-2025, Crossword Generation with LLMs

PROFESSIONAL SERVICE

Conference Reviewer Reviewer for: *ACL/ARR 2023-Present, COLING 2024, IEEE TASLP 2024, TrustNLP 2024 Great Reviewer Nomination: April, June, August 2024 ARR Outstanding Reviewer: EMNLP 2024	UMD 2022-2024
Winter Storm LLM Workshop Led a 5-day workshop on LLMs for non-CS graduate students	UMD Jan 2023
SIGNLL President of Special Interest Group for Natural Language Learning	UIUC Aug 2020 - May 2021

PROGRAMMING SKILLS

- **Languages:** Python, JavaScript/HTML/CSS R, C++, Java, OCaml
- **Libraries:** Huggingface, Datasets, TRL, Pytorch, nltk, Spacy, BeautifulSoup