

## RESEARCH INTERESTS

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I am a Ph.D. student in computer science at the University of Maryland, College Park, advised by Professors Jordan Boyd-Graber and Rachel Rudinger. I conduct research with the goal of better aligning and evaluating LLMs, with a focus on **factuality** in text generation, guiding models toward **true user needs**, and evaluating the **weaknesses** and **capabilities** of models. I am extremely grateful to be funded by the NSF GRFP and a Cohere for AI Research Grant.

## EDUCATION

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- **University of Maryland, College Park (UMD)** College Park, MD  
Ph.D. Computer Science; GPA: 4.00/4.00 Aug 2023 - Present  
**Advisors:** Jordan Boyd-Graber, Rachel Rudinger
- **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

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- 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  
**Nishant Balepur**, Abhilasha Ravichander, Rachel Rudinger  
**Best Paper Award (4%) and Oral Presentation (7%) at MASC-SSL 2024**  
**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 task and model with iterative planning and retrieval to generate factual texts

## ALL PUBLICATIONS AND WRITTEN WORK

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- MoDS: Moderating a Mixture of Document Speakers to Summarize Debatable Queries in Document Collections  
Under Review  
**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 Wiegrefe, Marine Carpuat, Rachel Rudinger
- The Prompt Report: A Systematic Survey of Prompting Techniques  
Preprint  
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  
**Nishant Balepur**, Abhilasha Ravichander, Rachel Rudinger  
**Best Paper Award (4%) and Oral Presentation (7%) at MASC-SSL 2024**
- 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 (KnowledgeLM 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
- Mastering the ABCDs of Complex Questions: Answer-Based Claim Decomposition for Self-Evaluating LLMs  
Preprint  
**Nishant Balepur**, Jie Huang, Samraj Moorjani, Kevin Chen-Chuan Chang, Hari Sundaram
- DynaMiTE: Discovering Explosive Topic Evolutions with User Guidance  
ACL 2023 (Findings)  
**Nishant Balepur\***, Shivam Agarwal\*, Karthik Ramanan, Susik Yoon, Diyi Yang, Jiawei Han

## INDUSTRY EXPERIENCE

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- **Adobe** San Jose, CA  
Research Scientist Intern: LLM Agents, Summarization (Paper Under Review) May 2024 - Aug 2024
- **Meta** Menlo Park, CA  
Software Engineering Intern May 2022 - Aug 2022
- **HiMarley** Remote  
Data Science Intern May 2021 - Aug 2021
- **State Farm** Champaign, IL  
Actuarial and Modeling Intern Aug 2020 - Dec 2020
- **John Deere** Remote  
Software Engineering Intern Jun 2020 - Aug 2020

## STUDENTS MENTORED

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- **Matthew Shu** (B.S. Yale), 2023-Present, LLMs in Education  
First-authored and second-authored at EMNLP 2024
- **Atrey Desai** (B.S. UMD), 2024-Present, Dataset Artifacts
- **Jerry He** (HS Student), 2024-Present, Crossword Generation with LLMs

## PROFESSIONAL SERVICE

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- **Conference Reviewer** UMD  
Reviewer for: ACL/ARR 2023-Present, COLING 2024, IEEE TASLP 2024  
Program Committee: TrustNLP 2024 2022-Present
- **Visiting Student Day Volunteer** UMD  
Volunteer and ambassador for UMD's visiting student day Mar 2024
- **Winter Storm LLM Workshop** UMD  
Led a 5-day workshop on LLMs for non-CS graduate students Jan 2023
- **Computer Science and Statistics Student Ambassador** UIUC  
Mentor of new students and volunteer for computer science and statistics events Aug 2022 - May 2023
- **SIGNLL** UIUC  
President of Special Interest Group for Natural Language Learning Aug 2020 - May 2021
- **Co-founder of Project: Code** UIUC  
Co-founder of student organization to help students build computer science projects Aug 2019 - May 2021

## HONORS AND AWARDS

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- **NSF Graduate Research Fellowship Program (GRFP)** April 2023 - April 2028  
Provided \$159,000 for 3 Years of Fully-Funded Ph.D. Support
- **MASC-SSL 2024 Best Paper Award** April 2024  
Selected for one of three (4%) best paper awards for "Artifacts or Abduction"
- **Cohere for AI Research Grant Program** April 2024  
Provided \$1,000 from Cohere for AI to support the KARL research project
- **Dean's Fellowship** April 2023 - April 2025  
Awarded the Dean's Fellowship from UMD for outstanding academic achievement

- **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
- **James N. Snyder Memorial Award** May 2021  
Awarded to three juniors based on academic merit