

Nishant Balepur

Emails: nbalepur@umd.edu, nishantbalepur@gmail.com

Website: nbalepur.github.io

RESEARCH INTERESTS

I am a first-year 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 **aligning LLMs with human values**, with a focus on **factuality** in text generation, **human-guided** frameworks, and **LLM reasoning interpretability**. I am extremely grateful to be funded by the NSF Graduate Research Fellowship Program.

EDUCATION

- **University of Maryland, College Park (UMD)** College Park, MD
Ph.D. Computer Science; GPA: 4.00/4.00 Aug 2023 - Present
Advisors: Professors 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: Professors Kevin Chen-Chuan Chang, Jiawei Han, Hari Sundaram, Diyi Yang

PUBLICATIONS AND WRITTEN WORK

- Artifacts or Abduction: How Do LLMs Answer Multiple-Choice Questions Without the Question?
arxiv:2402.12483
Nishant Balepur, Abhilasha Ravichander, Rachel Rudinger
TL;DR: We discover that LLMs can obtain high accuracy without the question in MCQA, and analyze how
- It's Not Easy Being Wrong: Evaluating Process of Elimination Reasoning in Large Language Models
arxiv:2311.07532
Nishant Balepur, Shramay Palta, Rachel Rudinger
TL;DR: We uncover a new weakness of LLMs—reasoning toward incorrect options on multiple-choice questions
- KARL: Knowledge-Aware Retrieval and Representations aid Retention and Learning in Students
arxiv:2402.12291
Matthew Shu*, **Nishant Balepur***, Shi Feng*, Jordan Boyd-Graber
TL;DR: We create a BERT-based flashcard scheduler to help students learn more effectively
- Expository Text Generation: Imitate, Retrieve, Paraphrase
EMNLP 2023
Nishant Balepur, Jie Huang, Kevin Chen-Chuan Chang
TL;DR: We design a task and model to generate multi-sentence and stylistically consistent factual texts
- Text Fact Transfer
EMNLP 2023
Nishant Balepur, Jie Huang, Kevin Chen-Chuan Chang
TL;DR: We propose a complement to style transfer, where models must preserve style while transferring facts
- DynaMiTE: Discovering Explosive Topic Evolutions with User Guidance
Findings of ACL 2023
Nishant Balepur*, Shivam Agarwal*, Karthik Ramanan, Susik Yoon, Diyi Yang, Jiawei Han
TL;DR: We build a model to mine for topics evolutions in large corpora, leveraging user-provided seed guidance
- Mastering the ABCDs of Complex Questions: Answer-Based Claim Decomposition for Self-Evaluating LLMs
arXiv:2305.14750
Nishant Balepur, Jie Huang, Samraj Moorjani, Kevin Chen-Chuan Chang, Hari Sundaram
TL;DR: We study whether LLMs can perform a fine-grained form of self-evaluation
- Aligning Language Models with Factuality and Truthfulness
Undergraduate Senior Thesis
Nishant Balepur, Kevin Chen-Chuan Chang

INDUSTRY EXPERIENCE

- **Adobe** San Jose, CA
Research Scientist Intern (Incoming) 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
• <i>Actuarial and Modeling Intern</i>	<i>Aug 2020 - Dec 2020</i>
• John Deere	Remote
• <i>Software Engineering Intern</i>	<i>Jun 2020 - Aug 2020</i>

STUDENTS MENTORED

- **Matthew Shu** (B.S. Yale), 2023-Present, LLMs in Education
First-authored paper under review
- **Jerry He** (HS Student), 2024-Present, Crossword Generation with LLMs

PROFESSIONAL SERVICE

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

HONORS AND AWARDS

• NSF Graduate Research Fellowship Program (GRFP)	April 2023 - April 2028
• <i>Provided \$159,000 for 3 Years of Fully-Funded Ph.D. Support</i>	
• Cohere for AI Research Grant Program	April 2024
• <i>Provided \$1,000 from Cohere for AI to support the KARL research project</i>	
• Dean's Fellowship	April 2023 - April 2025
• <i>Awarded the Dean's Fellowship from UMD for outstanding academic achievement</i>	
• UIUC Computer Science Graduation with Highest Honors	May 2023
• <i>Recommended by the UIUC computer science department to graduate with highest honors</i>	
• C.W. Gear Outstanding Undergraduate Student	May 2022
• <i>Awarded to two seniors that have demonstrated excellence in research and service</i>	
• James N. Snyder Memorial Award	May 2021
• <i>Awarded to three juniors based on academic merit</i>	