Yash Kumar Lal

PHD CANDIDATE · COMPUTER SCIENCE, STONY BROOK UNIVERSITY

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Education

Stony Brook University	*Stony Brook, USA*
PHD, COMPUTER SCIENCE	*Aug 2020 - present*

- Advisor: Dr. Niranjan Balasubramanian
- Research Areas: Plan-Based Reasoning, Commonsense Reasoning, LLMs for Social Scientific Applications

Johns Hopkins University	*Baltimore, USA*
MS, COMPUTER SCIENCE	*August 2018 - May 2020*

- Advisor: Dr. Philipp Koehn; Thesis Advisor: Dr. Matt Post
- Research Areas: Machine Translation, Natural Language Inference

Manipal Institute of Technology	*Manipal, India*
BTECH, COMPUTER SCIENCE	*July 2014 - June 2018*

- Minor in Intelligent Systems
- Research Areas: Clickbait Detection

Publications

* denotes equal contribution

ARCHIVAL PEER-REVIEWED PAPERS

Gourab Dey and **Yash Kumar Lal**. 2025. On the Transferability of Causal Knowledge for Language Models. In Proceedings of the 7th Workshop on Narrative Understanding, Albuquerque, New Mexico, USA. Association for Computational Linguistics

Yash Kumar Lal*, Vanya Cohen*, Nathanael Chambers, Raymond Mooney, and Niranjan Balasubramanian. 2024. CaT-Bench: Benchmarking Language Model Understanding of Causal and Temporal Dependencies in Plans. In Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing, Miami, USA. Association for Computational Linguistics.

Yash Kumar Lal, Li Zhang, Faeze Brahman, Bodhisattwa Prasad Majumder, Peter Clark, Niket Tandon. 2024. Tailoring with Targeted Precision: Edit-Based Agents for Open-Domain Procedure Customization. In Findings of the Association for Computational Linguistics: ACL 2024, Bangkok, Thailand. Association for Computational Linguistics

Yash Kumar Lal, Preethi Lahoti, Aradhana Sinha, Yao Qin, Ananth Balashankar. 2024. Automated Adversarial Discovery for Safety Classifiers. In Proceedings of the Fourth Workshop on Trustworthy Natural Language Processing (TrustNLP), NAACL 2024. **Runner-Up, Best Long Paper**

Gourab Dey*, Adithya V Ganesan*, **Yash Kumar Lal***, Manal Shah, Shreyashee Sinha, Matthew Matero, Salvatore Giorgi, Vivek Kulkarni, and H. Schwartz. 2024. Socialite-Llama: An Instruction-Tuned Model for Social Scientific Tasks. In Proceedings of the 18th Conference of the European Chapter of the Association for Computational Linguistics, Malta. Association for Computational Linguistics.

Sugam Devare, Mahnaz Koupaee, Gautham Gunapati, Sayontan Ghosh, Sai Vallurupalli, **Yash Kumar Lal**, Francis Ferraro, Nathanael Chambers, Greg Durrett, Raymond Mooney, Katrin Erk, and Niranjan Balasubramanian. 2023. SAGE-viz: SchemA GEneration and Visualization. In Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing: System Demonstrations, pages 251–258, Online and Singapore. Association for Computational Linguistics.

Adithya V Ganesan*, **Yash Kumar Lal***, August Nilsson, and H. Schwartz. 2023. Systematic Evaluation of GPT-3 for Zero-Shot Personality Estimation. In Proceedings of the 13th Workshop on Computational Approaches to Subjectivity, Sentiment, & Social Media Analysis, pages 390–400, Toronto, Canada. Association for Computational Linguistics.

Dhruv Verma, **Yash Kumar Lal**, Shreyashee Sinha, Benjamin Van Durme, and Adam Poliak. 2023. Evaluating Paraphrastic Robustness in Textual Entailment Models. In Proceedings of the 61st Annual Meeting of the Association for Computa-

tional Linguistics (Volume 2: Short Papers), pages 880–892, Toronto, Canada. Association for Computational Linguistics.

Yash Kumar Lal* and Mohaddeseh Bastan*. 2022. SBU Figures It Out: Models Explain Figurative Language. In Proceedings of the 3rd Workshop on Figurative Language Processing (FLP), pages 143–149, Abu Dhabi, United Arab Emirates (Hybrid). Association for Computational Linguistics.

Yash Kumar Lal, Niket Tandon, Tanvi Aggarwal, Horace Liu, Nathanael Chambers, Raymond Mooney, and Niranjan Balasubramanian. 2022. Using Commonsense Knowledge to Answer Why-Questions. In Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing, pages 1204–1219, Abu Dhabi, United Arab Emirates. Association for Computational Linguistics.

Yash Kumar Lal, Reetu Singh, Harsh Trivedi, Qingqing Cao, Aruna Balasubramanian, and Niranjan Balasubramanian. 2021. IrEne-viz: Visualizing Energy Consumption of Transformer Models. In Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing: System Demonstrations, pages 251–258, Online and Punta Cana, Dominican Republic. Association for Computational Linguistics.

Yash Kumar Lal, Nathanael Chambers, Raymond Mooney, and Niranjan Balasubramanian. 2021. TellMeWhy: A Dataset for Answering Why-Questions in Narratives. In Findings of the Association for Computational Linguistics: ACL-IJCNLP 2021, pages 596–610, Online. Association for Computational Linguistics.

Qingqing Cao, **Yash Kumar Lal**, Harsh Trivedi, Aruna Balasubramanian, and Niranjan Balasubramanian. 2021. IrEne: Interpretable Energy Prediction for Transformers. In Proceedings of the 59th Annual Meeting of the Association for Computational Linguisticsand the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers), pages 2145–2157, Online. Association for Computational Linguistics.

Siddharth Vashishtha, Adam Poliak, **Yash Kumar Lal**, Benjamin Van Durme, and Aaron Steven White. 2020. Temporal Reasoning in Natural Language Inference. In Findings of the Association for Computational Linguistics: EMNLP 2020, pages 4070–4078, Online. Association for Computational Linguistics.

Kelly Marchisio, **Yash Kumar Lal**, and Philipp Koehn. 2019. Johns Hopkins University Submission for WMT News Translation Task. In Proceedings of the Fourth Conference on Machine Translation (Volume 2: Shared Task Papers, Day 1), pages 287–293, Florence, Italy. Association for Computational Linguistics.

Aaron Mueller* and **Yash Kumar Lal***. 2019. Sentence-Level Adaptation for Low-Resource Neural Machine Translation. In Proceedings of the 2nd Workshop on Technologies for MT of Low Resource Languages, pages 39–47, Dublin, Ireland. European Association for Machine Translation.

Yash Kumar Lal, Vaibhav Kumar, Mrinal Dhar, Manish Shrivastava, and Philipp Koehn. 2019. De-Mixing Sentiment from Code-Mixed Text. In Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics: Student Research Workshop, pages 371–377, Florence, Italy. Association for Computational Linguistics.

Yash Kumar Lal*, Dhruv Khattar*, Vaibhav Kumar*, Abhimanshu Mishra*, Vasudeva Varma. 2018. Check It Out: Politics and Neural Networks. In CLEF (Working Notes).

Vaibhav Kumar*, Dhruv Khattar*, Siddharth Gairola*, **Yash Kumar Lal***, Vasudeva Varma. 2018. Identifying Clickbait: A Multi-Strategy Approach Using Neural Networks. In Proceedings of the 41st International ACM SIGIR Conference on Research & Development in Information Retrieval, pages 1225–1228. Ann Arbor, USA

Non-Archival Papers

Vahid Sadiri Javadi, Johanne R. Trippas, **Yash Kumar Lal**, Lucie Flek. 2024. Can Stories Help LLMs Reason? Curating Information Space Through Narrative. arXiv

Yash Kumar Lal, Niket Tandon, Horace Liu, Nathanael Chambers, Raymond Mooney, and Niranjan Balasubramanian. 2022. Using Commonsense Knowledge to Answer Why-Questions. 4th Workshop of Narrative Understanding (WNU2022), Seattle, United States. Association for Computational Linguistics

Vaibhav Kumar, Mrinal Dhar, Dhruv Khattar, **Yash Kumar Lal**, Abhimanshu Mishra, Manish Shrivastava, Vasudeva Varma. 2018. SWDE: A Sub-Word And Document Embedding Based Engine for Clickbait Detection. International Workshop on Computational Surprise in Information Retrieval (CompS), SIGIR 2018. Ann Arbor, USA

Under Review Papers

Sayontan Ghosh, Mahnaz Koupaee, **Yash Kumar Lal**, Pegah Alipoormolabashi, Mohammad Saqib Hasan, Jun Seok Kang, Niranjan Balasubramanian. 2025. DIAMONDs: A Dataset for Dynamic Information And Mental modeling Of Numeric Discussions. Under Review at the Second Conference on Language Modeling.

Vahid Sadiri Javadi, Johanne R. Trippas, **Yash Kumar Lal**, Lucie Flek. 2025. Can Stories Help LLMs Reason? Curating Information Space Through Narrative. Under Review at the ACL Rolling Review, February 2025.

Adithya V Ganesan, Vasudha Varadarajan, **Yash Kumar Lal**, Veerle C. Eijsbroek, Katarina Kjell, Oscar N.E. Kjell, Tanuja Dhanasekaran, Elizabeth C. Stade, Johannes C. Eichstaedt, Ryan L. Boyd, H. Andrew Schwartz, Lucie Flek. 2025. Explaining GPT-4's Schema of Depression Using Machine Behavior Analysis. Under Review at the NPJ Digital Medicine

Professional Experience

Aug 2023 - Nov 2023	**Student Researcher**, Google Research, New York City, NY
May 2023 - Aug 2023	**Research Intern**, Allen Institute for Artificial Intelligence, Seattle, WA
May 2022 - Aug 2022	**Research Intern**, Salesforce Inc., Palo Alto, CA
Jan 2018 - Jun 2018	**NLP Engineer**, ThreatLandscape, Bangalore, India
May 2017 - July 2017	**Research Intern**, IIIT-Hyderabad, Hyderabad, India

Awards

2024	**Google PhD Fellowship Nominee**, 1 of 4 students selected by Stony Brook University
2024	**Runner-Up, Best Long Paper**, Fourth Workshop on Trustworthy NLP @ NAACL, 2024
2017	**Acceleprise Award**, AngelHack Global Demo Day, San Francisco
2017	**Winner**, AngelHack, Hyderabad
2017	**3rd place**, Microsoft code.fun.do, Manipal

Teaching Experience

Fall 2024	**CSE 538 - Natural Language Processing**, Guest Lecturer	*Stony Brook, NY*
Fall 2023	**CSE 354 - Natural Language Processing, SUNY Korea**, Teaching Assistant	*Remote*
Spring 2023	**CSE 354 - Natural Language Processing**, Guest Lecturer	*Stony Brook, NY*
Fall 2021	**CSE 538 - Natural Language Processing**, Teaching Assistant	*Stony Brook, NY*
Spring 2020	**EN 421/621 - Object-Oriented Software Engineering**, Head Teaching Assistant	*Baltimore, MD*
Fall 2019	**EN 421/621 - Object-Oriented Software Engineering**, Head Teaching Assistant	*Baltimore, MD*
Fall 2018	**EN 421/621 - Object-Oriented Software Engineering**, Teaching Assistant	*Baltimore, MD*

Mentoring

03/2025-Present	**Ananya Sadana**, MS Student, Stony Brook University
02/2025-Present	**Manikanta Bandham**, MS Student, Stony Brook University
02/2025-Present	**Ananya Sadana**, MS Student, Stony Brook University
02/2025-Present	**Pushkar Taday**, BS Student, Stony Brook University
02/2025-Present	**Sabrina Akter Chaite**, BS Student, Stony Brook University
10/2024-01/2025	**Prathamesh Bagal**, MS Student, Stony Brook University
08/2024-Present	**Anjaliba Jadeja**, BS Student, Stony Brook University
10/2023-05/2024	**Gourab Dey**, MS Student, Stony Brook University
10/2021-01/2023	**Dhruv Verma**, MS Student, Stony Brook University
10/2021-01/2023	**Shreyashee Sinha**, MS Student, Stony Brook University
01/2022-06/2022	**Vanessa Almond Kurisingal**, MS Student, Stony Brook University
01/2022-06/2022	**Tanvi Aggarwal**, MS Student, Stony Brook University
01/2022-06/2022	**Priya Pande**, MS Student, Stony Brook University
08/2021-05/2022	**Horace Liu**, BS-MS Student, Stony Brook University
04/2021-07/2021	**Reetu Singh**, MS Student, Stony Brook University

Outreach

SERVICE AND OUTREACH

2025	**Conference on Empirical Methods in Natural Language Processing**, Publicity Chair	*Suzhou, China*
2025	**Workshop on Narrative Understanding**, Organizer	*Albuquerque, USA*
2024-2025	**Computer Science Graduate Committee**, Student Representative	*Stony Brook, USA*
2024-2025	**All Things Language and Computation Talk Series**, Organizer	*Stony Brook, USA*
2024	**Workshop on Narrative Understanding**, Organizer	*Miami, USA*
2022-2023	**Computer Science Graduate Student Organization**, Vice-President	*Stony Brook, NY*
2022	**North American Chapter of the ACL (NAACL)**, Reproducibility Chair	*Seattle, USA*
2022	**Workshop on Commonsense Representation and Reasoning**, Organizer	*Dublin, Ireland*
2017-2018	**MUPy: Python Developer Conference**, Organizer	*Manipal, India*
2016-2017	**Manipal Information Security Team**, Vice-President	*Manipal, India*
2016-2017	**Linux Users Group**, Core Committee Member	*Manipal, India*

PEER REVIEW

Program Committee, Demonstrations Track, Nations of the Americas Chapter of the ACL (NAACL) 2025
Reviewer, ACM Journal on Computing and Sustainable Societies, 2024
Reviewer, Conference on Language Modeling (COLM), 2024-2025
Reviewer, Fourth Workshop on Figurative Language Processing, 2024
Reviewer, Association for Computational Linguistics Rolling Review (ACL-ARR), November 2021-Present
Program Committee, Annual Meeting of the Association for Computational Linguistics (ACL), 2023
Reviewer, Conference on Empirical Methods in Natural Language Processing (EMNLP), 2021-2023
Reviewer, European Conference on Information Retrieval (ECIR), 2019-2021
Reviewer, ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), 2020
Reviewer, Fourth Conference on Machine Translation (WMT), 2019

Presentations

Yash Kumar Lal*, Vanya Cohen*, Nathanael Chambers, Raymond Mooney, and Niranjan Balasubramanian. 2024. *CaT-Bench: Benchmarking Language Model Understanding of Causal and Temporal Dependencies in Plans.* All Things Language And Computation (ATLAC): Stony Brook University, NY.

Yash Kumar Lal*, Vanya Cohen*, Nathanael Chambers, Raymond Mooney, and Niranjan Balasubramanian. 2024. *CaT-Bench: Benchmarking Language Model Understanding of Causal and Temporal Dependencies in Plans.* 15th Annual Machine Learning Symposium: New York Academy of Sciences, NY.

Yash Kumar Lal. 2024. *Judging LLM-as-a-Judge with MT-Bench and Chatbot Arena.* NLP Seminar: Computer Science Dept, Stony Brook University, NY.

Yash Kumar Lal. 2023. *Customizing Open-Domain Procedures.* Allen Institute for Artificial Intelligence, Seattle, WA.

Yash Kumar Lal, Preethi Lahoti, Aradhana Sinha, Yao Qin, Ananth Balashankar. 2023. *Automating Adversarial Discovery for Safety Classifiers.* Google Research, New York, NY.

Yash Kumar Lal, Niket Tandon, Tanvi Aggarwal, Horace Liu, Nathanael Chambers, Raymond Mooney, and Niranjan Balasubramanian. 2022. *Using Commonsense Knowledge to Answer Why-Questions.* Poster: 2022 Computer Science Graduate Research Day, Stony Brook University.

Yash Kumar Lal. 2022. *Using Commonsense Knowledge to Answer Why-Questions.* NLP Seminar: Computer Science Dept, Stony Brook University, NY.

Yash Kumar Lal. 2022. *Leveraging Knowledge Graphs for Pre-Training Question Decomposers.* Salesforce Research, Palo Alto, CA.

Yash Kumar Lal. 2022. *Gricean Maxims.* LIN 655: Computational Approaches to Modeling Cognitive State from Language, Stony Brook University, NY.

Yash Kumar Lal. 2021. *Morphological Tagging.* LIN 655: Natural Language Processing for Arabic and its Dialects, Stony Brook University, NY.

Yash Kumar Lal, Nathanael Chambers, Raymond Mooney, and Niranjan Balasubramanian. 2021. *TellMeWhy: A Dataset for Answering Why-Questions in Narratives.* Poster: 1st Workshop on Natural Language Generation, Evaluation, and Metrics (GEM 2021), Online.

References

1. Niranjan Balasubramanian. Associate Professor, Stony Brook University. `niranjan@cs.stonybrook.edu`

2. Raymond Mooney. Professor, University of Texas, Austin. `mooney@utexas.edu`

3. Nathanael Chambers. Professor, US Naval Academy. `nchamber@usna.edu`