Navita Goyal

Computer Science Ph.D. Student
University of Maryland College Park
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https://navitagoyal.github.io/

Area of Interest

Natural Language Processing (NLP), Causality, Interpretability, Fairness

Education

University of Maryland College Park — Aug 2021 – Present
Ph.D. in Computer Science (GPA: 4.0/4.0)
Advisor: Prof. Hal Daumé III

Indian Institute of Technology Roorkee — July 2014 – May 2019
Master of Science in Applied Mathematics (Integrated BS+MS) (GPA: 3.8/4.0)
Department Gold Medal 🏅, *Best Thesis Award* 🏆

Work Experience

Visiting Researcher | MILA and University of Montreal — Jun 2023 – Aug 2023
Area: Causal representation learning in text, Causal abstraction
Mentor: Prof. Dhanya Sridhar and Dr. Alexandre Drouin

Research Assistant | University of Maryland — Aug 2021 – Present
Area: Causal text inference, Explainability and trust in AI, Mechanistic interpretability

Research Associate | Adobe Research — Jun 2019 – Aug 2021
Area: Text generation, Causal inference, User modeling

Research Intern | Adobe Research — May 2018 – Jul 2018
Area: Sequence modeling, Smart devices

Publications

Large Language Models Help Humans Verify Truthfulness–Except When They Are Convincingly Wrong
Chenglei Si, Navita Goyal, Sherry Tongshuang Wu, Chen Zhao, Shi Feng, Hal Daumé III, Jordan Boyd-Graber
Accepted at NAACL 2024

The Impact of Explanations on Fairness in Human-AI Decision Making: Protected vs Proxy Features
Navita Goyal, Connor Baumler*, Tin Nguyen and Hal Daumé III*
Accepted at IUI 2024
(Also presented at CHI 2023 Workshop on Trust and Reliance in AI-Assisted Tasks)

What Else Do I Need to Know? The Effect of Background Information on Users' Reliance on AI Systems
Navita Goyal, Eleftheria Briakou, Amanda Liu, Connor Baumler, Claire Bonial, Jeffrey Micher, Clare R. Voss, Marine Carpuat, Hal Daumé III
EMNLP 2023
(Also presented at CHI 2023 Workshop on Trust and Reliance in AI-Assisted Tasks)

Explaining with Contrastive Phrasal Highlighting: A Case Study in Assisting Humans to Detect Translation Differences
Eleftheria Briakou, Navita Goyal, Marine Carpuat
EMNLP 2023

Factual or Contextual? Disentangling Error Types in Entity Description Generation
Navita Goyal, Ani Nenkova, Hal Daumé III
ACL 2023

DynamicTOC: Persona-based Table of Contents for Consumption of Long Documents
Himanshu Maheshwari, Nethraa Sivakumar, Shelly Jain, Tanvi Karandikar, Vinay Aggarwal, Navita Goyal, Sumit Shekhar
NAACL 2022

CaM-Gen: Causally Aware Metric-Guided Text Generation
Navita Goyal, Roodram Paneri, Ayush Agarwal, Udit Kalani, Abhilasha Sancheti, Niyati Chhaya
Findings of ACL 2022

Multi-Style Transfer with Discriminative Feedback on Disjoint Corpus
Navita Goyal, Balaji Vasan Srinivasan, Anandhavelu N, Abhilasha Sancheti
NAACL 2021

Workshops

Personalized Detection of Cognitive Biases in Users' Action Logs: Anchoring and Recency Biases
Atanu Sinha, Navita Goyal*, Sunny Dhamnani, Tanay Asija, Raja K Dubey, Kaarthik Raja MV, Georgios Theocharous*
AAAI 2023 AI4BC (Workshop on AI For Behavior Change)

*Equal contribution

Patents

Dynamic Persona-based Document Navigation
Sumit Shekhar, Tanvi V Karandikar, Nethraa Sivakumar, Shelly Jain, Himanshu Maheshwari, Vinay Aggarwal, Navita Goyal
US Patent Application 17/732,920 | Adobe

Assisted Review of Text Content using a Machine Learning Model
Navita Goyal, Ani Nenkova, Natwar Modani, Ayush Maheshwari, Inderjeet Nair
US Patent Application 17/549,270 | Adobe

Intelligent Change Summarization for Designers
Suryateja BV, Vishwa Vinay, Niyati Chhaya, Navita Goyal, Elaine Chao, Balaji Vasan Srinivasan, Aparna Garimella
US Patent Application 17/522,790 | Adobe

Content Augmentation with Machine Generated Content to Meet Content Gaps During Interaction with Target Entities
Niyati Chhaya, Udit Kalani, Roodram Paneri, Sreekanth Reddy, Niranjan Kumbi, Navita Goyal, Balaji Vasan Srinivasan, Ayush Agarwal
US Patent Application 17/501,602 | Adobe

Multi-dimensional Language Style Transfer
Navita Goyal, Balaji Vasan Srinivasan, Anandhavelu N, Abhilasha Sancheti
US Patent 11/487,971 | Adobe

Machine Learning Techniques for Augmenting Electronic Documents with Data Verification Indicators
Navita Goyal, Anandhavelu N, Ishika Singh, Vipul Shankhpal, Baldip Singh Bijlani, Priyanshu Gupta
US Patent Application 17/108,424 | Adobe

Detecting Cognitive Biases in Interactions with Analytics Data
Atanu Sinha, Navita Goyal, Sunny Dhamnani, Tanay Asija, Raja K Dubey, Kaarthik Raja MV, Georgios Theocharous
US Patent 11/669,755 | Adobe

Awards and Scholarships

Graduate Student Summer Internship Fellowship at University of Maryland (2023)
Graduate School Dean's Fellowship at University of Maryland (2021-2023)
Grace Hopper Scholarship at University of Maryland 2022
Department Gold medal for best performing student during undergraduate at Indian Institute of Technology Roorkee
Best project award for master's thesis at Indian Institute of Technology Roorkee
Arya award for excellence on the basis of overall performance for a graduating UG girl student in the batch of 2019
Recipient of INSPIRE scholarship for higher education by Government of India (2014-2019)

Services and Miscellaneous

Peer-reviewer | EMNLP '23, ACL '23, EMNLP '22
Sub Peer-reviewer | ACL '20, '22, EMNLP '20, '21, SIGIR '20, '21, IJCAI '20, AAAI '21, NAACL '21, KDD '21
Organized workshop on The Future of Academic Research in the Era of Pre-Trained Models | University of Maryland 2023
Volunteered in the Graduate Admissions Committee | University of Maryland 2022
Mentored undergraduate summer internships | Adobe Research 2019-2022
Participated in the internship recruitment | Adobe Research 2019-2022