Yash Kumar Atri

Postdoc at University of Virginia

📍 1919 ivy road, University of Virginia, USA
✉ yashkumaratri@gmail.com
⌂ yashkumaratri.com

RESEARCH INTERESTS

I am interested in enabling language models to continuously learn and adapt beyond their initial learning. My current research explores model editing, developing methods to update language models with new information or corrections efficiently. I build modular systems that treat each update as a localized intervention, allowing the model to evolve while retaining what it already knows. My long-term vision is to build models that learn like humans, accumulating knowledge meaningfully, refining their understanding over time, and staying robust as languages, technologies, and societal values shift.

ACADEMIC APPOINTMENTS

University of Virginia, School of Data Science   USA
Postdoctoral Research Associate   *July 2024 - Now*
- **Advisor**: Prof. Tom Hartvigsen
- **Topic**: Editing Large Language Models

EDUCATION

Indraprastha Institute of Information Technology (IIIT-Delhi)   Delhi, India
Doctor of Philosophy (Ph.D.)   *2020 - 2024*
- **Advisors**: Prof. Vikram Goyal, Prof. Tanmoy Chakraborty
- **Thesis Title**: Advancing text summarization with conscience, comprehension, and multimodality

Jaypee University Anoopshahr   Anoopshahr, India
Bachelor of Technology (B.Tech.) in Computer Science and Engineering   *2014 - 2018*
- **Advisors**: Dr. Amit Kumar
- **Thesis Title**: Machine translation in Indian languages

PUBLICATIONS

C=CONFERENCE, J=JOURNAL, P=PREPRINT, T=PATENT

P.3 **Yash Kumar Atri**, Ahmed Alaa, Thomas Hartvigsen, Model Editing with Graph-Based External Memory, Openreview Preprint (ARR) 2025

P.2 **Yash Kumar Atri**, Thomas H Shin, Thomas Hartvigsen, Continually Self-Improving Language Models for Bariatric Surgery Question Answering, Openreview Preprint (ARR) 2025

T.1 Simran Kalra, **Yash Kumar Atri**, Tanmoy Chakraborty, SYSTEM AND METHOD FOR TEXT SUMMARIZATION, Application Number 202311015836, Publication Number 37/2024 (Patent)

C.5 **Yash Kumar Atri**, Arun Iyer, Tanmoy Chakraborty, Vikram Goyal, Promoting Topic Coherence and Inter-Document Consorts in Multi-Document Summarization via Simplicial Complex and Sheaf Graph, Conference on Empirical Methods in Natural Language Processing (EMNLP) 2023

J.2 **Yash Kumar Atri**, Vikram Goyal, Tanmoy Chakraborty, Multi-Document Summarization using Selective Attention Span and Reinforcement Learning, IEEE Transactions on Audio, Speech, and Language Processing (TASL) 2023

C.4 **Yash Kumar Atri**, Vikram Goyal, Tanmoy Chakraborty, Fusing Multimodal Signals on Hyper-complex Space for Extreme Abstractive Text Summarization (TL;DR) of Scientific Contents, ACM SIGKDD Conference on Knowledge Discovery and Data Mining (SIGKDD) 2023

P.1 **Yash Kumar Atri**, Vikram Goyal, Tanmoy Chakraborty, Exploiting Representation Bias for Data Distillation in Abstractive Text Summarization, arXiv Preprint (Arxiv) 2023

C.3 Priyanshi Gupta, **Yash Kumar Atri**, Apurva Nagvenkar, Sourish Dasgupta, Tanmoy Chakraborty, Inline Citation Classification using Peripheral Context and Time-evolving Augmentation, Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2023

C.2 Vaibhav Pulastya, Gaurav Nuti, **Yash Kumar Atri**, Tanmoy Chakraborty, Assessing the Quality of the Datasets by Identifying Mislabeled Samples, IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM) 2021

J.1 **Yash Kumar Atri***, Shraman Pramanick*, Vikram Goyal, Tanmoy Chakraborty, See, Hear, Read: Leveraging Multimodality with Guided Attention for Abstractive Text Summarization, Elsevier Knowledge-Based Systems (KBS) 2021

C.1 Alvin Dey*, Tanya Chowdhury*, **Yash Kumar Atri***, Tanmoy Chakraborty, Corpora Evaluation and System Bias Detection in Multi-Document Summarization, Findings of the Association for Computational Linguistics at the Conference on Empirical Methods in Natural Language Processing (EMNLP Findings) 2020

INVITED TALKS

Lamarr Institute NLProc Colloquium   UBonn, Germany
Talk title: Waking LLMs from CryoSleep with Continual Learning   *2025*

ACM-India's Symposium for Academic Research and Careers for Students   NISER Bhubhaneshwar, India
Talk title: Fairness in Abstractive Text Summarization   *2023*

International Conference on Natural Language Processing (ICON)   University of Goa, India
Tutorial on Building Blocks of AI-Driven Mental Health Counseling   *2023*

RIISE 2024   IIIT Delhi, India
Poster Presentation   *2023*

Awards and Achievements

- **DAAD AInet Fellow** *2024*
  Postdoc-NeT-AI, Germany
- **Microsoft Travel Grant, iHub-Anubhuti Travel Grant** *2023*
  For Travel to Singapore for EMNLP
- **Microsoft Travel Grant, iHub-Anubhuti Travel Grant, ACM-India Travel Grant (IARCS)** *2023*
  For Travel to Long Beach, USA for KDD

Industry Experience

Laboratory for Computational Social Systems (LCS2), IIIT Delhi	Delhi, India
Research Associate	*Sep. 2019 - Dec. 2019*
Lumiq.ai	Noida, India
Software Engineer (Data Science)	*Jul. 2018 - Aug. 2019*
Lumiq.ai	Noida, India
AI Engineer (Intern)	*Feb. 2018 - Jun. 2018*
Primelite Technologies	Noida, India
Data Scientist (Intern)	*May 2017 - Jul. 2017*
Trignosoft Technologies	Noida, India
Android Developer (Virtual Intern)	*May 2017 - Jun. 2017*

TAs and Community Work

Reviewer	-
ARR, ICLR, KBS, TASL, BDA, ICON, ASONAM	-
Organizer & Coordinator	IIIT Delhi, India
BDA 2023 Conference, ICON 2023 Conference, ACSS 2022, 2021, 2020, Cofad 2020 Workshops	*2020-2023*
Teaching Assistant	IIIT Delhi, India
CSE557 (Winter 2020), CSE506 (Monsoon 2020), CSE557 (Winter 2021), CSE506 (Monsoon 2021)	*2020-2022*

References

1. **Prof Tom Hartvigsen**
   Assistant Professor, School of Data Science
   University of Virginia
   Email: hartvigsen@virginia.edu
   Relationship: Postdoc Advisor

2. **Prof Vikram Goyal**
   Professor, Dept. of Computer Science
   Indraprastha Institute of Technology Delhi (IIIT Delhi), India
   Email: vikram@iiitd.ac.in
   Relationship: PhD Advisor

3. **Prof Tanmoy Chakraborty**
   Associate Professor, Dept. of Electrical Engineering
   Indian Institute of Technology Delhi (IIT Delhi), India
   Email: tanchak@iitd.ac.in, chak.tanmoy.iit@gmail.com*
   Relationship: PhD Advisor