

Niket Tandon

WORK EXPERIENCE

- SEP 2016- **Allen Institute for AI**
Role: Sr. Research Scientist
Topic: Natural Language Guided Reasoning in Language Models.
Advancing Machine Reasoning and Generative AI
- NOV 2023 **Jio Institute, India**
Role: Visiting Professor
Introduction to NLP course
- AUG 2023- **Pictory.ai, Kaiburr.com**
Role: Advisory board (AI)
Advising startups
- OCT-DEC 2015 **Microsoft Research, Seattle**
Role: Research Intern
Topic: Knowledge extraction
- APR 2013 - **PQRS Research**
Role: Founder
Topic: Remote internships in AI
Mentored award-winning theses
- AUG-OCT 2011 **Microsoft Research, Seattle**
Role: Research Intern
Topic: Spelling Correction LMs
Prototype shipped to Bing
- JUN- DEC 2009 **LTRC Lab, IIT Hyderabad**
Role: Research Engineer
Topic: Cross Lingual IR
Catalyzed a stagnant project
- 2007 – 2009 **IBM Software Lab, Gurgaon**
Role: Software Engineer
Topic: Agile based SDLC
Best internal (PBC) rating: 1.0
- JAN-JUN 2007 **Yahoo R&D, Bangalore**
Role: Undergrad Intern
Topic: Wrapper Induction
Best undergrad thesis score

EDUCATION

- 2012 – 16 **Ph.D., Computer Science**
Max Planck Institute, Germany
Advisor: Prof. Dr. Gerhard Weikum
Thesis: Commonsense Knowledge: Acquisition and Applications
Summa cum laude, IMPRS scholarship
- 2010 – 12 **M.Sc., Computer Science**
Max Planck Institute & Saarland Univ., Germany
GPA 1.2/1.0, Honors Deg.
IMPRS Scholarship
- 2003 – 07 **B.Tech, Computer Science**
VIT Vellore, India
GPA 9.2/10, Rank: 3/139
Undergrad Scholarship

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(*) Dated: Oct 2023

ACHIEVEMENTS

- INDUSTRY Lasting impact paper award: AI2
Top achiever: IBM
- GRAD STUDIES IMPRS scholarship: top 1% applicants
- UNDERGRAD Merit scholarship for every year during undergrad
- ENTRANCE TEST Top 0.2% at State Level'03,
Top 1% at National Level

SELECTED PUBLICATIONS (2800+ CITATIONS)

- Aligning Language Models to User Opinions: Eun-Jeong, Bodhi, Niket: EMNLP'23
- Self-Refine: Iterative Refinement with Self-Feedback: Aman, Niket et.al: NeurIPS'23 [**Media coverage**]
- Can AI Language Models Replace Human Participants?: Danica, Niket et. al: Trends in CogSci'23 [**Media coverage**]
- RL4F: Generating NL Feedback with Reinforcement Learning for Repairing Model Outputs: Feyza et. al, Niket: ACL 2023 [**Media coverage**]
- Memory-assisted prompt editing to improve GPT-3 after deployment:Aman*, Niket* et.al: EMNLP'22 [**Social media coverage, Best paper nomination** at ACL - CSRR workshop]
- Think about it! Improving defeasible reasoning by first modeling the question scenario: A. Madaan, Niket et.al: EMNLP'21
- Generating inference graphs for defeasible reasoning: A. Madaan, Niket et.al: Findings ACL'21
- A Dataset for Tracking Entities through Open State Changes in Text: Niket et. al: EMNLP'20
- From 'F' to 'A' on the NY Regents Science Exams: An Overview of the Aristo Project: with Aristo team: AI Magazine'20. [**Media coverage**]
- WIQA: A dataset for "What if..." reasoning over procedural text: Niket et. al: EMNLP'19
- Everything Happens for a Reason: Predicting Causal Dependencies in Procedural Text: Bhavana, Niket et. al: EMNLP'19
- Reasoning about actions and state changes by injecting commonsense: Niket et. al: EMNLP'18
- Tracking State Changes in Procedural Text: a Challenge Dataset and Models for Process Paragraph Comprehension: Bhavana, Lifu, Niket et al: NAACL'18

14. Commonsense Knowledge in Machine Intelligence: [Niket](#), Aparna, Gerard: ACM SIGMOD Record '18
15. Movie description: A Rohrbach, A Torabi, M Rohrbach, [Niket](#), C Pal, H Larochelle, et al: International Journal of Computer Vision' 17
16. Distilling task knowledge from how-to communities: CX Chu, [Niket](#), G Weikum: WWW'17
17. WebChild 2.0: fine-grained commonsense knowledge distillation: [Niket](#), G de Melo, G Weikum: Proceedings of ACL'17
18. Domain-targeted, high precision knowledge extraction: B Dalvi, [Niket](#), P Clark: TACL'17
19. Webbrain: Joint neural learning of large-scale commonsense knowledge: J Chen, [Niket](#), CD Hariman, G de Melo: International Semantic Web Conference'16
20. Learning language-visual embedding for movie understanding with natural-language: A Torabi, [Niket](#), L Sigal: arXiv preprint arXiv: 1609.08124, 2016
21. Commonsense in Parts: Mining Part-Whole Relations from the Web and Image Tags.: [Niket](#), C Hariman, J Urbani, A Rohrbach, M Rohrbach, G Weikum: AAAI 2016
22. Neural word representations from large-scale commonsense knowledge: J Chen, [Niket](#), G de Melo: Web Intelligence and Intelligent Agent Technology (WI-IAT), 2015
23. Knowlywood: Mining activity knowledge from hollywood narratives: [Niket](#), G de Melo, A De, G Weikum: Proceedings of the 24th ACM International on CIKM
24. Lights, camera, action: Knowledge extraction from movie scripts: [Niket](#), G Weikum, G Melo, A De: Proceedings of WWW, [**Highest review scored short paper** at WWW conference]
25. Multimedia Data for the Visually Impaired.: [Niket](#), S Sharma, T Makkad: AAAI 2015 [**Supervised the best undergrad thesis**]
26. Perceptually grounded selectional preferences: E Shutova, [Niket](#), G De Melo: ACL 2015
27. A dataset for movie description: A Rohrbach, M Rohrbach, [Niket](#), B Schiele: CVPR 2015
28. Acquiring Comparative Commonsense Knowledge from the Web.: [Niket](#), G De Melo, G Weikum: AAAI 2014
29. Webchild: Harvesting and organizing commonsense knowledge from the web: [Niket](#), G de Melo, F Suchanek, G Weikum: WSDM 2014.
30. AAAI 2011: Deriving a web-scale common sense fact knowledge base: [Niket](#), G Weikum, G de Melo, M Theobald

TEACHING RELATED

VISITING PROF.	Jio Institute (teaching NLP)
GRAD THESIS	Supervised (informally) Ph.D. thesis (CMU), 2020–2023 Supervised three Masters thesis - Saarland Univ., 2014–15
UNDERGRAD	Supervised nearly 10 undergrad thesis with PQRS, 2013–14
TUTORIALS	* WSDM international conference 2021 tutorial on commonsense * CIKM tutorial on Commonsense Knowledge, Singapore- 2017. * AI and the Web: organized 3 days national workshop, India- 2011.
LECTURES	ETH, EPFL, Saarland, UBC, UW, ...
TA	TA for Grad course: IR & Data Mining - Saarland Univ., 2011

PROFESSIONAL ACTIVITIES

AREA CHAIR/ PC EMNLP, AAAI, ACL, WWW, TACL

REFERENCES

Available upon request.