Niket Tandon

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Education

2012 – 2016 **Ph.D., Computer Science**
Max Planck Institute, Germany
Advisor: Prof. Dr. Gerhard Weikum
Thesis: Commonsense Knowledge Acquisition and Applications
Summa cum laude

2010 – 2012 **M.Sc., Computer Science**
Max Planck Institute &
Saarland Univ., Germany
GPA 1.2/1.0, Honors Deg.
IMPRS Scholarship

2003 – 2007 **B.Tech, Computer Science**
VIT Vellore, India
GPA 9.2/10, Rank: 3/139
Undergrad Scholarship

Employment

Sep 2016- **Allen Institute for AI**
Role: Research Scientist
Topic: Commonsense reasoning in Deep Learning models

Oct-Dec 2015 **Microsoft Research, Seattle**
Role: Research Intern
Topic: Knowledge extraction

2013 - *2016 **PQRS Research**
Role: Founder
Topic: Remote internships in AI, NLP, Deep Learning
Mentored award-winning theses

Aug-Oct 2011 **Microsoft Research, Seattle**
Role: Research Intern
Topic: Spelling Correction using Language Models with linear and generalized interpolation
Prototype shipped to Bing

Jun- Dec 2009 **LTRC Lab, IIIT Hyderabad**
Role: Research Engineer
Topic: Cross Lingual IR: Language identification and constructing bilingual dictionaries using Wikipedia
Catalyzed a stagnant project

2007 – 2009 **IBM Software Lab, Gurgaon**
Role: Software Engineer
Topic: Agile based complete SDLC for Clearcase Source Code Management
Best internal (PBC) rating: 1.0

Jan-Jun 2007 **Yahoo R&D, Bangalore**
Role: Undergrad Intern
Topic: Wrapper Induction for Information Extraction
Best undergrad thesis score

Achievements

Grad studies	IMPRS scholarship awarded to less than 2% applicants
Industry	Top achiever rating at IBM
Undergrad	Merit scholarship for every year during undergrad
Entrance Exams	Top 0.2% at State Level'03, Top 1% at National Level

Selected Publications

1. Everything Happens for a Reason: Predicting Causal Dependencies in Procedural Text: N Tandon et. al: NAACL 2019 (under submission)
2. Be Consistent! Improving Procedural Text Comprehension using Label Consistency: X. Du, BD Mishra, N Tandon et. al: NAACL 2019 (under submission)
3. Reasoning about actions and state changes by injecting commonsense knowledge: N Tandon et. al: EMNLP 2018
4. Tracking State Changes in Procedural Text: a Challenge Dataset and Models for Process Paragraph Comprehension: BD Mishra, L. Huang, N Tandon et al: NAACL 2018
5. What Happened? Leveraging VerbNet to Predict the Effects of Actions in Procedural Text: BD Mishra, N Tandon, P Clark: arXiv:1804.05435, 2018
6. Commonsense Knowledge in Machine Intelligence: N Tandon, AS Varde, G de Melo: ACM SIGMOD Record (2018), 49-52
7. VISIR: Visual and Semantic Image Label Refinement: SN Chowdhury, N Tandon, H Ferhatosmanoglu, G Weikum: Proceedings of the Eleventh ACM International Conference on WSDM 2018
8. Domain-Targeted, High Precision Knowledge Extraction: BD Mishra, N Tandon, P Clark: Transactions of the Association for Computational Linguistics (2017), 233-246
9. Movie description: A Rohrbach, A Torabi, M Rohrbach, N Tandon, C Pal, H Larochelle, et al: International Journal of Computer Vision 123 (2017), 94-120
10. Distilling task knowledge from how-to communities: CX Chu, N Tandon, G Weikum: WWW 2017
11. WebChild 2.0: fine-grained commonsense knowledge distillation: N Tandon, G de Melo, G Weikum: Proceedings of ACL 2017, System Demonstrations, 115-120

12. Domain-targeted, high precision knowledge extraction: B Dalvi, N Tandon, P Clark: TACL 2017

13. Webbrain: Joint neural learning of large-scale commonsense knowledge: J Chen, N Tandon, CD Hariman, G de Melo: International Semantic Web Conference 2016

14. Learning language-visual embedding for movie understanding with natural-language: A Torabi, N Tandon, L Sigal: arXiv preprint arXiv: 1609.08124, 2016

15. Air quality assessment from social media and structured data: Pollutants and health impacts in urban planning: X Du, O Emebo, A Varde, N Tandon, SN Chowdhury, G Weikum: Data Engineering Workshops (ICDEW), 2016

16. Seeing is believing: the quest for multimodal knowledge by Gerard de Melo and Niket Tandon, with Martin Vesely as coordinator: G de Melo, N Tandon: ACM SIGWEB Newsletter 2016

17. Commonsense in Parts: Mining Part-Whole Relations from the Web and Image Tags.: N Tandon, C Hariman, J Urbani, A Rohrbach, M Rohrbach, G Weikum: AAAI 2016

18. Know2Look: Commonsense Knowledge for Visual Search: SN Chowdhury, N Tandon, G Weikum: Proceedings of the 5th Workshop on Automated Knowledge Base Construction, 57-62

19. Neural word representations from large-scale commonsense knowledge: J Chen, N Tandon, G de Melo: Web Intelligence and Intelligent Agent Technology (WI-IAT), 2015

20. Knowlywood: Mining activity knowledge from hollywood narratives: N Tandon, G de Melo, A De, G Weikum: Proceedings of the 24th ACM International on CIKM

21. Lights, camera, action: Knowledge extraction from movie scripts: N Tandon, G Weikum, G Melo, A De: Proceedings of the 24th International Conference on World Wide Web, 127-128

22. Multimedia Data for the Visually Impaired.: N Tandon, S Sharma, T Makkad: AAAI, 4210-4211

23. A proposal of the marriage of encyclopedic and commonsense knowledge: D Rajagopal, N Tandon: CMU LTI-SRS symposium.(cited on page 8)

24. Perceptually grounded selectional preferences: E Shutova, N Tandon, G De Melo: Proceedings of the 53rd Annual Meeting of the Association for Computational

25. A dataset for movie description: A Rohrbach, M Rohrbach, N Tandon, B Schiele: Proceedings of the IEEE conference on computer vision and pattern

26. Acquiring Comparative Commonsense Knowledge from the Web.: N Tandon, G De Melo, G Weikum: AAAI, 166-172

27. Webchild: Harvesting and organizing commonsense knowledge from the web: N Tandon, G de Melo, F Suchanek, G Weikum

28. Proceedings of the 7th ACM international conference on Web search and data: Citation context sentiment analysis for structured summarization of research papers: N Tandon, A Jain

29. 35th German Conference on Artificial Intelligence, 24-27: Markov chains for robust graph-based commonsense information extraction: N Tandon, D Rajagopal, G Melo

30. Proceedings of COLING 2012: Demonstration Papers, 439-446: Deriving a Web-Scale Common Sense Fact Database.: N Tandon, G De Melo, G Weikum

31. AAAI: Deriving a web-scale common sense fact knowledge base: N Tandon, G Weikum, G de Melo, M Theobald

32. Masters thesis, Universitt des Saarlandes Saarbrcken.(cited on page 25): A weighted tag similarity measure based on a collaborative weight model: G Srinivas, N Tandon, V Varma

33. Proceedings of the 2nd international workshop on Search and mining user: Information extraction from web-scale n-gram data: N Tandon, G De Melo

34. Web N-gram Workshop 7: An iterative approach to extract dictionaries from wikipedia for under-resourced languages: R Bharadwaj, N Tandon, V Varma

35. Simulation of coordinating sniffer robots for building odor maps: N Tandon, A Karthik, SS Rana, PV Krihsna

36. Computational Intelligence, Communication Systems and Networks, 2009. CICSYN: Addressing challenges in automatic Language Identification of Romanized Text: K Pavan, N Tandon, V Varma

Teaching and Seminars

Grad Thesis	Supervised two Masters thesis - Saarland Univ., 2014–15
Undergrad	Supervised nearly 10 undergrad thesis with PQRS, 2013–14
Teaching	TA for Grad course: IR & Data Mining - Saarland Univ., 2011
Invited Talk	Commonsense Mining. NUS, Singapore - 2012
Tutorials	AI and the Web: organized 3 days seminar, India- 2011. CIKM tutorial on Commonsense Knowledge, Singapore- 2017

Professional Activities

Senior PC Member	WWW 2018
PC Member	WWW 2017, AAAI 2018, NAACL 2018, ACL 2018, IJCAI 2019, and other conferences and journals

References

Available upon request.