

Naganand Yadati

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Google Scholar

Work Experience

- 2022– **Postdoctoral Research Fellow**,
School of Computing,
National University of Singapore,
Supervisor: Prof. Arnab Bhattacharyya.
- 2017 Research Intern,
International Business Machines Corporation (IBM),
Group: India Research Labs (IBM-IRL),
Topic: Canonicalisation of Open Knowledge Bases.
- 2012 Intern,
Integra Micro Systems,
Group: Product Team,
Topic: Android Mobile File Transfer using C Programming.

Research Focus

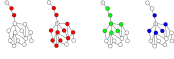
Deep Learning with Graph Neural Networks,
Learning Rich Structures, e.g., Causal Graphs, Hypergraphs.

Education

- 2016–2021 **Ph.D.**,
Department of Computer Science and Automation,
Indian Institute of Science, Bangalore, India,
Thesis: Deep Learning over Hypergraphs,
Advisor: Prof. Partha Talukdar.
- 2014–2016 M.Tech. in Information Technology,
International Institute of Information Technology, Bangalore, India,
Advisor: Prof. Ashish Choudhury.

Publications

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[GAINER: Graph Machine Learning with Node-specific Radius for Classification of Texts](#),
Naganand Yadati,

In the European Chapter of the Association for Computational Linguistics (EACL) 2024.

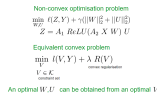
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[HEAL: Unlocking the Potential of Learning on Hypergraphs Enriched with Attributes and Layers](#),
Naganand Yadati, Tarun Kumar, Deepak Maurya, Balaraman Ravindran, and Partha Talukdar,

In the Learning on Graphs Conference (LoG) 2023,
[poster](#).

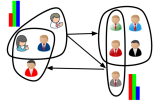
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[A Convex Formulation for Graph Convolutional Training: Two Layer Case](#),
Naganand Yadati,

In IEEE International Conference on Data Mining (ICDM) 2022,
[slides](#) | [code](#).

5



[Graph Neural Networks for Soft Semi-Supervised Learning on Hypergraphs](#),

Naganand Yadati, Tingran Gao, Shahab Asoodeh, Partha Talukdar, and Anand Louis,

In Proceedings of 25th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2021,
[code](#).

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[Knowledge Base Question Answering through Recursive Hypergraphs](#),

Naganand Yadati, Dayanidhi R S, Vaishnavi S, Indira K M, and Srinidhi G,

In Proceedings of the European Association for Computational Linguistics (EACL) 2021,
[video](#).

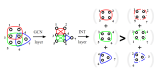
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[Neural Message Passing for Multi-Relational Ordered and Recursive Hypergraphs](#),
Naganand Yadati,

In Advances in Neural Information Processing Systems (NeurIPS) 2020,
[virtual page](#) | [code](#).

2

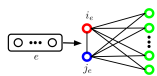


[NHP: Neural Hypergraph Link Prediction](#),

Naganand Yadati, Vikram Nitin, Madhav Nimishakavi, Prateek Yadav, Anand Louis, and Partha Talukdar,

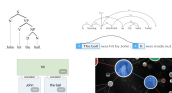
In Proceedings of the ACM Conference on Information & Knowledge Management (CIKM) 2020,
[video](#) | [code](#).

1



[HyperGCN: A New Method For Training Graph Convolutional Networks on Hypergraphs](#),
Naganand Yadati, Madhav Nimishakavi, Prateek Yadav, Vikram Nitin, Anand Louis, and Partha Talukdar,
In Advances in Neural Information Processing Systems (NeurIPS) 2019,
[slides](#) | [code](#).

Tutorial



[Graph-based Deep learning in Natural Language Processing](#),
Shikhar Vashishth, [Naganand Yadati](#), and Partha Talukdar,
In Empirical Methods in Natural Language Processing (EMNLP) 2019,
CoDS-COMAD 2020: 7th ACM IKDD CoDS and 25th COMAD,
[code](#) | [video part 1](#) | [video part 2](#).

Workshop Moderatorship



[Graphs and More Complex Structures for Learning and Reasoning \(GCLR\)](#),
Tarun Kumar, Deepak Maurya, Nikita Moghe, [Naganand Yadati](#), Jeshuran Chelladurai, and Aparna Rai,
In The Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI), 2021,
[videos](#).

Program Committee Membership

- 2020- Neural Information Processing Systems (NeurIPS),
- 2021- International Conference on Machine Learning (ICML),
- 2020- International Conference on Learning Representations (ICLR),
- 2022- Learning on Graphs Conference (LoG),
- 2021 Association for the Advancement of Artificial Intelligence (AAAI),
- 2021 Transactions on Pattern Analysis and Machine Intelligence (TPAMI),
- 2020 European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD),
- 2020 Neurocomputing.

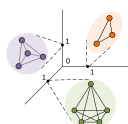
Awards

- 2022 Outstanding Reviewer for ICML 2022 (Top 10%),
- 2021 Expert Reviewer for ICML 2021,
- 2020 Top 10% Reviewer for NeurIPS 2020,
- 2019 Google Travel Grant for NeurIPS 2019.

Invited Talks

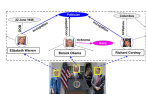
- 2023 School of Computing Seminar: Learning over Hypergraphs
- 2022 ShareChat, Deep Learning over Hypergraphs for Recommendation
- 2021 Microsoft Cambridge, Deep Learning over Hypergraphs
- 2019 Indian Institute of Science Seminar, Graph Convolution on Hypergraphs
- 2017 Ramaiah Institute Of Technology, Introduction to Deep Learning

Co-authored Publications



[Lovasz Convolutional Networks,](#)

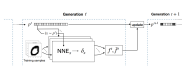
Prateek Yadav, Madhav Nimishakavi, [Naganand Yadati](#), Shikhar Vashishth, Arun Rajkumar, and Partha Talukdar, In International Conference on Artificial Intelligence and Statistics (AISTATS) 2019, [code](#).



[KVQA: Knowledge-aware Visual Question Answering,](#)

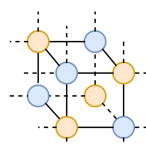
Sanket Shah, Anand Mishra, [Naganand Yadati](#), and Partha Talukdar,, In The Thirty-Third AAAI Conference on Artificial Intelligence (AAAI) 2019, [website](#).

Workshop Papers



[Biologically Plausible Neural Networks via Evolutionary Dynamics and Dopaminergic Plasticity,](#)

Sruthi Gorantla, Anand Louis, Christos H Papadimitriou, Santosh Vempala, and [Naganand Yadati](#), In Real Neurons & Hidden Units @ NeurIPS 2019.



[MT-CGCNN: Integrating Crystal Graph Convolutional Neural Network with Multitask Learning for Material Property Prediction,](#)

Soumya Sanyal, Janaki Balachandran, [Naganand Yadati](#), Abhishek Kumar, Padmini Rajagopalan, Suchismita Sanyal, and Partha Talukdar, In NeurIPS 2018 Workshop on Machine Learning for Molecules.

Teaching Assistantship

2018 Linear Algebra and Applications.

Academic Courses

- Ph.D. Real Analysis, Linear Algebra and Applications, Probability and Statistics, and Pattern Recognition and Neural Networks.
- M.Tech. Approximation Algorithms, Foundations of Big Data Algorithms, and Algorithms for Massive Data.

Skills

Programming Python, PyTorch, C
Tools LaTeX, OCTAVE
OS Linux (Ubuntu), Windows

Academic Recognitions

- 2014 All India Rank of **944** for Post-graduate Admissions (GATE)
- 2013 Summer School Award for Problem Solving in Algorithms
- 2010 All State Rank of **209** for University Admissions (KCET)
- 2008 Scores of **100/100** in Mathematics in Pre-University Course as well as 10th Grade