# Naganand Yadati

## Education

2016-ongoing **Ph.D.**, Department of Computer Science and Automation,

Indian Institute of Science, Bangalore, Thesis: Deep Learning over Hypergraphs.

Advisors: Prof. Partha Talukdar, Prof. Arnab Bhattacharyya

2014–2016 M.Tech. in Information Technology,

International Institute of Information Technology, Bangalore.

## Research Focus

Deep Learning Emphasis on Graph neural networks, Learning on hypergraphs and other complex structures (such as heteorogeneous graphs, temporal graphs, etc.).

### **Publications**



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.

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,



Neural Message Passing for Multi-Relational Ordered and Recursive Hypergraphs,

Naganand Yadati,

neurips page.

## **Tutorial**



Graph-based Deep Learning in Natural Language Processing,

Shikhar Vashishth, Naganand Yadati, and Partha Talukdar,

In Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP): Tutorial Abstracts CoDS-COMAD 2020: 7th ACM IKDD CoDS and 25th COMAD,

slides | code | video part 1 | video part 2.

#### **Awards**

2020 Top 10% Reviewer for NeurIPS 2020.

2019 Google Travel Grant for NeurIPS 2019.

## Program Committee Membership

- 2021 ICML, ICLR, AAAI.
- 2020 NeurIPS, ECML-PKDD, ICLR.

## 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,



#### 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, Dopaminergic Plasticity,

Sruthi Gorantla, Anand Louis, Christos H Papadimitriou, Santosh Vempala, 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, <u>Naganand Yadati</u>, Abhishek Kumar, Padmini Rajagopalan, Suchismita Sanyal, and Partha Talukdar,

In NeurIPS 2018 Workshop on Machine Learning for Molecules.

# Manuscripts Under Review

- 1) Graph Neural Networks for Soft Semi-Supervised Learning on Hypergraphs.
  - Naganand Yadati, Tingran Gao, Shahab Asoodeh, Partha Talukdar, and Anand Louis
- 2) HEAL: Embedding Multi-Layer Hypergraphs.

Naganand Yadati, Tarun Kumar, Deepak Maurya, Partha Talukdar, and Balaraman Ravindran

# Teaching Assistantship

2018 Linear Algebra and Applications.

# Academic Courses during Ph.D. and M.Tech.

- 1 Real Analysis.
- 2 Linear Algebra and Applications.
- 3 Probability and Statistics.
- 4 Pattern Recognition and Neural Networks.
- 5 Approximation Algorithms.
- 6 Algorithms for Massive Data.