Priyesh Vijayan

Graph Representation Learning, Semi-Supervised Learning
Email: priyesh@hotmail.co.in | Ph: +1-514-967-7402
Webpage: https://priyeshv.github.io | Gitpage: https://github.com/priyeshv

EDUCATION

PHD IN CS, MCGILL UNIVERSITY & MILA| 2019
Research Advisor: William Hamilton

MS BY RESEARCH (THESIS) IN CSE, INDIAN INSTITUTE OF TECHNOLOGY MADRAS| 2015 - 2018
Research Advisor: Balaraman Ravindran

BE IN CSE, ANNA UNIVERSITY CHENNAI| 2009 - 2013

PATENTS

USER CATEGORIZATION IN COMMUNICATIONS NETWORKS | United States 20150236910
Work done during internship at Ericsson R&D | Collaborator: Shivashankar Subramanian

PUBLICATIONS AND PRE-PRINTS

INFLUENCE MAXIMIZATION IN UNKNOWN SOCIAL NETWORKS: LEARNING POLICIES FOR EFFECTIVE GRAPH SAMPLING [Best Paper Nominee]
International Conference on Autonomous Agents and Multiagent Systems, AAMAS'20
Harshavardhan Kamarthi, Priyesh Vijayan, Bryan Wilder, Balaraman Ravindran & Milind Tambe

A UNIFIED NON-NEGATIVE MATRIX FACTORIZATION FRAMEWORK FOR SEMI-SUPERVISED LEARNING ON GRAPHS
SIAM International Conference on Data Mining, SDM'20
Anasua Mitra, Priyesh Vijayan, Srinivasan Parthasarathy & Balaraman Ravindran

UNDERSTANDING DYNAMIC SCENES USING GRAPH CONVOLUTION NETWORKS
International Conference on Intelligent Robots and Systems, IROS'20
Sravan Mylavarapu, Mahtab Sandhu, Priyesh Vijayan, Madhav Krishna, Balaraman Ravindran, and Anoop Namboodiri

ON INCORPORATING STRUCTURAL INFORMATION TO IMPROVE DIALOGUE RESPONSE GENERATION
International Conference on Intelligent Robots and Systems, IROS'20
Sravan Mylavarapu, Mahtab Sandhu, Priyesh Vijayan, Madhav Krishna, Balaraman Ravindran, and Anoop Namboodiri

TOWARDS ACCURATE VEHICLE BEHAVIOUR CLASSIFICATION WITH MULTI-RELATIONAL GRAPH CONVOLUTIONAL NETWORKS
NLP for Conversational AI workshop, ACL'20
Nikita Moghe, Priyesh Vijayan, Balaraman Ravindran, and Mitesh Khapra

NETWORK REPRESENTATION LEARNING: CONSOLIDATION AND RENEWED BEARING
arXiv:1905.00987
Priyesh Vijayan*, Saket Gurukar*, Aakash Srinivasan, Goonmeet Bajaj, Chen Cai, Moniba Keymanesh, Saravana Kumar, Pranav Maneriker, Anasua Mitra, Vedang Patel, Balaraman Ravindran & Srinivasan Parthasarathy

HOPF: HIGHER ORDER PROPAGATION FRAMEWORK FOR DEEP COLLECTIVE CLASSIFICATION
Statistical Relational AI workshop, IJCAI 2018 | arXiv:1805.12421
Priyesh Vijayan, Yash Chandak, Mitesh Khapra, Srinivasan Parthasarathy & Balaraman Ravindran

F-GCN: FUSION GRAPH CONVOLUTIONAL NETWORKS
Workshop on Mining and Learning with Graphs, KDD 2018 | arXiv:1805.12528
Priyesh Vijayan, Yash Chandak, Mitesh Khapra, Srinivasan Parthasarathy & Balaraman Ravindran

MULTI-LABEL COLLECTIVE CLASSIFICATION IN MULTI-ATTRIBUTE MULTI-RELATIONAL NETWORK DATA
IEEE/ACM Advances in Social Network Analysis and Mining, ASONAM'14
Priyesh Vijayan, Shivashankar Subramanian & Balaraman Ravindran

GRID SCHEDULING USING IMPROVED PARTICLE SWARM OPTIMIZATION WITH DIGITAL PHEROMONES | IJSER 2012 Proceedings
A P Sarath Chandar, Priyesh Vijayan & Doreen Robin

EXPERIENCE

ROBERT BOSCH CENTRE FOR DATA SCIENCE AND AI, DEPT. OF C.S.E, IIT MADRAS
Project Officer: Feb'19 - June'19 & Project associate: Aug'17 - Jan'19 | Supervisor: Prof. Balaraman Ravindran
Project: Network Representation Learning | An IITM-Intel Collaboration

- Built a Network Representation Learning toolkit for both attributed and non-attributed graphs.

R.I.S.E LAB, DEPT. OF C.S.E, IIT MADRAS
Project Associate: July'14 – Aug'17 | Supervisor: Balaraman Ravindran
Project: Wafer data inspection | An IITM-KLA Tencor Collaboration

- Worked on extreme multi-class class-imbalance classification problem to detect defects in semi-conductor wafers.
- Proposed multi-view semi-supervised and active learning strategies to overcome the limited labeled data setup.
- Designed CNNs based shared representation learning architectures to embed Optical and Electron-Microscope Images.

ERICSSON RESEARCH
Research Intern: June'13 – June'14 | Supervisor: Shivashankar Subramanian

- Worked on learning from heterogeneous data sources and built alarm prediction models for Telecom data.

GLOBAL OPERATIONS TEAM | PAYPAL
Intern: Dec'11| Supervisor: Ms. Bhaduri Raju Naidu

- Developed a web application tool with J2EE and MYSQL for Resource mapping and Reporting

AWARDS

PANICKKER AWARD | 2011-2012 | Institute level
This award is given to the best over-all pre-final year undergraduate student.

PROGRAMMING

LANGUAGES
Python, MATLAB, Java and C

LIBRARIES
TensorFlow, Pytorch

TALKS, CONFERENCES & SUMMER SCHOOLS

INVITED TALKS Transition from Machine Learning -> Deep Learning (MLDLTISP'18), S.V.C.E | 2018
3RD RBCDSAI Workshop on Recent Progress in Data Science and AI | 2018
Think like a Startup series, IITM Incubation cell | 2016

PRESENTATIONS Representation Learning Workshop, NeurIPS'19
Eighth Statistical Relational learning Workshop, IJCAI 2018
RBC-DSAI Workshop on Recent Progress in Data Science & AI, IITM | 2017

MICROSOFT SUMMER SCHOOL ON MACHINE LEARNING, IISC | 2015
DEEP LEARNING SUMMER SCHOOL, IIIT-H | 2016

TEACHING

TEACHING ASSISTANT: COMP598-001: Introduction to Data science (Fall'20)
COMP767-001: Graph Representation Learning (Winter'20)
ACM INDIA summer school on Data Science (2018)

MISC

PROGRAM COMMITTEE MEMBER: ADCOM'18, CoDs-COMAD'18
REVIEWER: ICLR'19, DMKD Journal, ACL'18
SUB-REVIEWER: AAAI'17, CODS'17 & DSAA'15
FIRST RUNNER UP - IBM THE GREAT MIND TECH QUIZ | 2011 | Regional
CHAIRPERSON | SVCE-ACM STUDENT CHAPTER | 2012-2013