

Research Interests

Graph Representation Learning; Natural Language Processing; Knowledge Graphs; Topological Analysis of Neural Networks; Explainability and Interpretability of Deep Neural Networks.

Work Experience

- June, 2021– Present **Google AI Research**, PRE-DOCTORAL RESEARCHER (BRAIN RESIDENT).
- June, 2020– August, 2020 **Learngam AI**, RESEARCH INTERN.
- January, 2018– May, 2018 **NewsInfo**, INTERN.

Education

- July, 2017– June 2021 **Bachelor Of Technology In Computer Science And Engineering**, *Indian Institute of Technology(IIT) Hyderabad, CGPA – 9.14/10.*

Publications

- 2021 **A Probabilistic Framework for Knowledge Graph Data Augmentation**
NeurIPS 2021 DCAI Workshop
Jatin Chauhan, Priyanshu Gupta and Pasquale Minervini
- 2020 **Learning Representations using Spectral-Biased Random Walks on Graphs**
IJCNN 2020
Charu Sharma, Jatin Chauhan and Manohar Kaul
- 2020 **Few-Shot Learning on Graphs via Super-Classes based on Graph Spectral Measures**
ICLR 2020
Jatin Chauhan, Deepak Nathani and Manohar Kaul
- 2019 **Learning Attention-based Embeddings for Relation Prediction in Knowledge Graphs**
ACL 2019
Deepak Nathani*, Jatin Chauhan*, Charu Sharma* and Manohar Kaul
(* denotes *equal contribution*)

Preprints and Other Works

- 2021 **Target Model Agnostic Adversarial Attacks with Query Budgets on Language Understanding Models**
Preprint
Jatin Chauhan, Karan Bhukar and Manohar Kaul
- 2021 **BERTOPS: Studying BERT Representations under a Topological Lens**
Under Review in **A*** Conference
Jatin Chauhan and Manohar Kaul

- 2021 **Contrastive Representations for Learning from Label Proportions**
Under Review in **A*** Conference
Jay Nandy, Rishi Saket, Aravindan Raghuv eer, **Jatin Chauhan**, Balaraman Ravindran and Prateek Jain
- 2021 **Improving Graph based Multivariate Time Series Forecasting models under Sparse Data Inference Setting**
To be Submitted
Jatin Chauhan, Aravindan Raghuv eer, Rishi Saket, Jay Nandy and Balaraman Ravindran

Achievements

- 2020 **Undergraduate Research Excellence Award**
- 2019 **Top 15 in PanIIT Hackathon: Artificial Intelligence for India**
- 2019 **Received Microsoft Research Travel Grant for ACL 2019 held in Florence, Italy**
- 2018 **Runner-Up: Tinkerer's Lab Competition on AI**
- 2017 **IIT JEE Advanced Rank - 554**
- 2017 **KVPY Fellowship**

Teaching

Introduction to Programming: My responsibilities included grading assignments and exams, conducting lab sessions for students and assisting in preparing the teaching material.

Service

Reviewer: ICLR 2022, NeurIPS 2021

External Reviewer: ICML 2021, AAAI 2021, ICLR 2021, NeurIPS 2020, EMNLP 2020, ACL 2020, NeurIPS 2019

Volunteering: IIT Hyderabad ACM Chapter, NSS IIT Hyderabad

Projects

- 2021 **Improving Negative Sampling in Contrastive Learning for Graph Classification**
- 2020 **Mathematical Question Answering via NALU based Transformers**
- 2020 **Image Captioning via Kernelised Attention**
- 2019 **Distant Supervision Relation Extraction Using Manifold-Mixup**
- 2019 **Knowledge Graph Embeddings via Attention based Random Walks**
- 2019 **Peer to Peer file sharing and distributed downloading system**

Relevant Courses

Causal Inference, Software Engineering, Information Retrieval, Data Mining, Theory of Computation, Principles of Programming Languages, Computer Networks, Databases, Data Structures, Operating Systems, Compilers, Algorithms, Discrete Mathematics, Calculus, Probability, Linear Algebra