Adarsh Jamadandi

Research Interests: Graph Representation Learning and

Geometric Deep Learning. Saarland Informatics Campus

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│ https://adarshmj.github.io
│ Google Scholar

EDUCATION _

Universität des Saarlandes, Saarbrücken, Germany.

November 2020 - August 2024

Masters in Computer Science

GPA (ECTS): 2.1/5.0. Advisor: Dr. Rebekka Burkholz

Master Thesis: On the Importance of Graph-Task Alignment for Graph Neural Networks.

B.V.Bhoomaraddi College of Engineering and Technology, Hubli, India.

August, 2014 - June, 2018

B.E in Electronics and Communication Engineering. GPA: 8.42/10.0 Advisor: Dr. Uma Mudenagudi.

Bachelor Thesis: Anomaly Detection in Unlabeled Videos.

WORK EXPERIENCE ____

CISPA Nov., 2022 - October, 2024

Research Assistant

Working on improving generalizability of graph neural networks

by tackling problems like over-squashing and over-smoothing.

Modelling and Simulation Lab, Saarland Informatics Campus.

Nov, 2021 - Jan, 2023.

Research Assistant

Working on modelling molecular spectra using graph neural networks.

KLE Technological University, Hubli, India.

April, 2019 - April, 2020

Research Associate

Responsibilities: Deep Learning for Underwater Image Enhancement.

Silicon14 Inc. Hubli, India.

February, 2017 - May, 2020

Chief Technology Officer and Co-Founder

Responsibilities: Develop hardware augmentations/low-cost sensors

for embedded systems and IoT.

PUBLICATIONS _

5. GNNs Getting ComFy: Community and Feature Similarity Guided Rewiring

Celia Rubio-Madrigal*, Adarsh Jamadandi*, and Rebekka Burkholz.

*equal contributions.Pre-print, Under-review 2024.

4. Spectral Pruning Against Over-Squashing and Over-Smoothing.

Adarsh Jamadandi*, Celia Rubio-Madrigal*, and Rebekka Burkholz.

 $*equal\ contributions. Advances\ in\ Neural\ Information\ Processing\ Systems,\ NeurIPS,\ 2024.$

3. Graph of Thrones: Adversarial Perturbations dismantle Aristocracy in Graphs.

Adarsh Jamadandi and Uma Mudenagudi. AAAI, Student Poster, 2021.

Extended Version in Differential Geometry meets Deep Learning Workshop, (NeurIPS), 2020.

2. Probabilistic Word Embeddings in Kinematic Space

Adarsh Jamadandi, Rishabh Tigadoli, Ramesh Tabib and Uma Mudenagudi.

International Conference on Pattern Recognition (ICPR, 2020).

1. Exemplar Based Underwater Image Enhancement augmented by Wavelet Corrected Transforms

Adarsh Jamadandi and Uma Mudenagudi .

Computer Vision and Pattern Recognition (CVPR Workshop, Oral), 2019.

SELECTED AWARDS AND HONORS

• Adarsh Jamadandi, Sujata C, Uma Mudenagudi and Ashok Shettar, System and Method for Video Summarization 201941003790, Patent Pending.

January, 2019

• Adarsh Jamadandi and Samar A M, Accexlron - A Rapid Prototyping Development Board. Best US-based Project by Hackster.io

March, 2019.

REFERENCES

- 2. Dr. Rebekka Burkholz.
- 1. Dr. Verena Wolf