Adarsh Jamadandi

Curriculum Vitae (21 September 2025)

CNRS Doctoral Researcher
Institut de Recherche en Informatique et Systèmes Aléatoires (IRISA)
263 Avenue du Général Leclerc, Rennes, France.

Email Personal Website Google Scholar LinkedIn

Research interests

Graph Machine Learning • Geometric Deep Learning •

Education

Sept 2025–present
Ph.D. in Computer Science at IRISA, France.
Node features in Graph Machine Learning: Benchmarks and New models.
Advisor: Nicolas Keriven.

Nov 2020–August 2024
M.Sc in Computer Science at Universität des Saarlandes, Germany.
On the Importance of Graph-Task Alignment in Graph Neural Networks.
Advisor: Rebekka Burkholz.

2014–2018
B.Eng in Electronics and Communication at KLE Technological University, India.
Anomaly Detection in Unlabelled Videos.
Advisor: Uma Mudenagudi.

Work Experience

March 2025–Aug 2025
Research Assistant at SprintML Lab, CISPA, Saarland, Germany.
Memorization in Graph Neural Networks.

Nov 2022–Oct 2024
Research Assistant at RelationalML Lab, CISPA, Saarland, Germany.
Mitigating Over-squashing and Over-smoothing via Graph Rewiring.

March 2025–Aug 2025
Research Assistant at Modeling and Simulation Lab, Germany.
Modeling Molecular Spectra using GNNs.

April, 2019–April 2020
Research Associate at KLE Technological University, India.
Deep Learning for Underwater Image Enhancement.

Feb, 2017–May, 2020
Chief Technology Officer and Co-Founder at Silicon14/Tweak Labs Inc.
Low cost hardware augmentations/sensors for embedded systems and IoT.

Publications

2025 **Memorization in Graph Neural Networks.**
Adarsh Jamadandi, Jing Xu, Adam Dziedzic, and Franziska Boenisch.
Advances in Neural Information Processing Systems, **NeurIPS, 2025.**

2025 **GNNs Getting ComFy : Community and Feature Similarity Guided Rewiring.**
Celia Rubio-Madrigal*, **Adarsh Jamadandi***,and Rebekka Burkholz.
equal contributions.* International Conference on Learning Representations, **ICLR,2025.

2024 **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.

2021 **Graph of Thrones : Adversarial Perturbations dismantle Aristocracy in Graphs.**
Adarsh Jamadandi and Uma Mudenagudi. **AAAI, Student Poster, 2021.**

2020 **Probabilistic Word Embeddings in Kinematic Space.**
Adarsh Jamadandi, Rishabh Tigadoli, Ramesh Tabib and Uma Mudenagudi.
International Conference on Pattern Recognition (**ICPR, 2020**).

2019 **Exemplar Based Underwater Image Enhancement augmented by Wavelet Corrected Transforms.**
Adarsh Jamadandi and Uma Mudenagudi .
Computer Vision and Pattern Recognition (**CVPR, 2019** Workshop, Oral).

Invited Talks

2025 **CEVI Vision++ Talk Series, India.**
Learning on Graphs: Strategies for Improving and Understanding Generalization in Graph Neural Networks.

2024 **Neptune AI Video Interview.**
How spectral graph pruning can help address over-squashing and over-smoothing?

2024 **Helmholtz AI Conference, Dusseldorf.**
How to mitigate both over-squashing and over-smoothing in GNNs?

Academic Service

2025 Reviewer for conference Advances in Neural Information Processing Systems (**NeurIPS**).

2025 Reviewer for conference Association for the Advancement of Artificial Intelligence (**AAAI**).

Selected Awards and Honors

2019 **Adarsh Jamadandi**, Sujata C, Uma Mudenagudi and Ashok Shettar,
System and Method for Video Summarization **201941003790, Patent Pending**.

2019 **Adarsh Jamadandi** and Samar A M, Accexlron - A Rapid Prototyping Development Board.
Best US-based Project by Hackster.io.