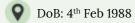


Dr. Meher Pindiprolu

PHD IN NETWORK SCIENCE ETH ZURICH, SWITZERLAND

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SKILLS

✓ **Languages:** Python, C++, Java

✓ ML & Graph Frameworks: PyTorch, TensorFlow, scikitlearn, DGL, PyTorch Geometric, NetworkX

✓ **Graph Learning Methods:** Graph Neural Networks, Graph Transformers, Community Detection, Network Science

TOP PUBLICATIONS

- "Scalable Graph Transformers using Adjacency Search Approaches", 2025
- "Adjacency Search Embeddings" TMLR 2024, 2025
- "Tight Sampling in Unbounded Network"
 AAAI ICWSM, 2024
- "An SDP relaxation for minimizing Polarization on Networks"
 Complex Networks XIV, 2024

AWARDS

- Purdue-Qatar Fellowship (\$62,000)
- Best Paper Award at HiPC'16
- AICTE Fellowship (\$8,000)

PROFILE

PhD in Network Science with over 8 years of research experience in graph algorithms, machine learning, and complex networks. Demonstrated track record of publishing in top-tier conferences and working extensively with large-scale graph data. I specialize in designing scalable and expressive graph neural networks (GNNs), including graph transformers, grounded in principles from network science. Skilled at bridging theory and practice, with a strong ability to translate advanced research into production-ready solutions for real-world ML/AI and data science applications.

WORK EXPERIENCE

Research Assistant

ETH Zürich | Jan 2019 - Dec 2024

- **Scalable Graph Transformers:** Architected sparse attention models handling millions of nodes while enhancing the predictive accuracy to 9%.
- **Node Embeddings:** Created node embedding algorithms for GNNs by leveraging s-t min-cut and contagion theory; improved node classification performance by 12%.
- Graph Laplacian Learning: Developed a graph Laplacian learning framework for link recommendation that provably reduces polarization, outperforming state-ofthe-art approaches.
- **Unsupervised Clustering:** Developed the first scalable online algorithm for local clustering in multiplex networks (e.g., Twitter), learning interaction priorities directly from data to uncover community structure in real time.
- Mentoring & Leadership: Led the SNSF-funded project on homophily and disinformation in social media, mentoring three Master's students in collaboration with partners in India; resulted in four peer-reviewed publications.

Research Assistant

IIIT Hyderabad, India | Aug 2013 - May 2016

 Parallel Graph Algorithms: Designed scalable parallel solutions for biconnected/triconnected component detection and all-pairs shortest-paths, delivering up to 4× and 1.6× speedups over leading benchmarks.

Senior Software Engineer

Nvidia | May 2012 - Jun 2013

 Embedded Systems & Driver Development: Implemented kernel-level UART, SPI, and I2C drivers for Nvidia Tegra modules deployed in BMW automotive systems.

EDUCATION

PhD. in Network Science

ETH Zürich, Switzerland | Feb 2020 - Dec 2024

Dissertation: Influence Processes on Networks

Master's in Computer Science

Purdue University, West Lafayette, USA | Jun 2016 - May 2019