



Dr. Meher Pindiprolu

PHD IN NETWORK SCIENCE
ETH ZÜRICH, SWITZERLAND



+41 77 966 11 86



meherchaitanya.pindiprolu@gmail.com



DoB: 4th Feb 1988

SKILLS

- ✓ **Languages:** Python, C++, Java
- ✓ **ML & Graph Frameworks:** PyTorch, TensorFlow, scikit-learn, DGL, PyTorch Geometric, NetworkX
- ✓ **Graph Learning Methods:** Graph Neural Networks, Graph Transformers, Community Detection, Network Science

SELECTED PUBLICATIONS

- "Cascade-Rewired Graph Transformer", 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, specializing 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 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-of-the-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 4x and 1.6x 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