

DISHA SHUR

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Research interests: Representation learning for data structured into graphs and higher-order networks.

Education and Skills

Purdue University <i>Ph.D., Computer Science</i> Research focus: Computation and learning on higher order structures	2022 -
Purdue University <i>M.S., Electrical and Computer Engineering</i> Thesis: PageRank Embedding, advised by Prof. David Gleich	2020 - 2022
Indian Institute of Engineering Science and Technology, Shibpur <i>B.Tech., Electronics and Telecommunication Engineering</i> Skills: Julia, Python, C++, MATLAB, PyTorch, TensorFlow, LaTeX	2014-2018

Publications

1. A flexible PageRank-based graph embedding framework closely related to spectral eigenvector embeddings submitted, available on arXiv
2. "Smoothed analysis of leader election in distributed networks", accepted and presented at The 22nd International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2020).
3. "Two Dimensional Microwave Imaging Using a Divide and Unite Algorithm", presented at *2017 Progress in Electromagnetics Research Symposium - Fall (PIERS - FALL)*, Nov.2017, published in *IEEE Xplore*

Relevant Projects and Research Experience

Purdue University, West Lafayette <i>Research Assistant with Prof. David Gleich</i> Working on PageRank methods for developing node embeddings for higher order connected data.	Jan'21 - Apr'22
Algorithmic Economics <i>Coursework under Prof. Alex Psomas</i> Worked on application of machine learning on modelling non-truthful mechanisms.	Jan'21 - May'21
Artificial Intelligence <i>Coursework under Prof. David Inouye</i> Worked on analyzing attention maps of BERT.	Aug'20-Dec'20
Indian Institute of Technology, Hyderabad <i>Research Intern with Brain group</i> Worked on information retrieval from location based social network (LBSN).	Aug'20 - Dec'20
Indian Statistical Institute, Kolkata <i>Research Intern under Prof. Anisur Molla</i> Worked on smoothed analysis of distributed leader election algorithm.	Jan'20 - Aug'20
Indian Institute of Science, Bangalore <i>Project Assistant under Prof. Chandra Murthy</i> Worked on reconstructing location-unaware samples by non-convex optimization techniques.	Feb'19-Sep'19
Indian Institute of Technology, Madras <i>Project Assistant under Prof. Uday Khankhoje</i> Developed an adaptive resolution based algorithm for inverse imaging via microwave scattering with application to tumor detection.	May-Jul'17, Jul-Dec'18

Work Experience

Purdue University

Aug'21-Dec'21

Graduate Teaching Assistant (TA), ECE301: Signals and Systems

TA under Prof. Fengqing Zhu for a class of 120 undergraduate students

Indian Institute of Science, Bangalore

Jan'19-Nov'19

Project Assistant, 5G Testbed, Department of Telecommunication

Worked on development of in-lab 5G testbed by implementing 3GPP Release 15 protocols using Open Air Interface

Language used: C++, Python

Co-curricular

Women in Machine Learning

Nov'21-Dec'21

Supervolunteer, WiML

Worked with the organizers for WiML workshop as a supervolunteer, co-located with the NeurIPS 2021 conference.

Women in Machine Learning

Nov'20-Dec'20

Volunteer, WiML

Mentored a poster presentation and blogged on the conference activities in real-time as a WiML volunteer, co-located with the NeurIPS 2020 conference.

Google Computer Science Research Mentorship Programme

Sep'21

Mentored by Google engineers and research scientists on current research methodologies and determining career pathway in Computer Science research.

Global Alumni Association of Bengal Engineering and Science University (GAABESU)

Sep'17

Travel grant to Nanyang Technological University, Singapore to present my work by the alumni association of IEST (Formerly BESU).

Summer Research Fellowship Programme (SRFP)

May'17

Research fellowship at IIT Madras for the summer of 2017.

Kshitij, IIT Kharagpur

Jan'15

1st in intra-college round, second runner up at the inter-college round at SoE, debate conducted at Kshitij, the techno-management fest of IIT Kharagpur, jointly by Honeywell and Institute of Mechanical Engineers.

West Bengal Joint Entrance Examination(WBJEE)

June'14

Achieved a rank of 825 which stands at 99.5 percentile in WBJEE, 2014.

Army Welfare Education Society (AWES)

Mar'13

Education Scholarship Scheme for Serving Army Personnel (ESSA) was conferred by AWES for academic records.