

DISHA SHUR

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

Education and Skills

Purdue University

2022 -

Ph.D., Computer Science

Research focus: Computation and learning on higher order structures

Purdue University

2020 - 2022

M.S., Electrical and Computer Engineering

Thesis: PageRank Embedding, advised by Prof. David Gleich

Indian Institute of Engineering Science and Technology, Shibpur

2014-2018

B.Tech., Electronics and Telecommunication Engineering

Skills: Julia, Python, C++, MATLAB, PyTorch, TensorFlow, LaTeX

Publications

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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

Jan'21 - Apr'22

Research Assistant with Prof. David Gleich

Working on PageRank methods for developing node embeddings for higher order connected data.

Algorithmic Economics

Jan'21 - May'21

Coursework under Prof. Alex Psomas

Worked on application of machine learning on modelling non-truthful mechanisms.

Artificial Intelligence

Aug'20-Dec'20

Coursework under Prof. David Inouye

Worked on analyzing attention maps of BERT.

Indian Institute of Technology, Hyderabad

Aug'20 - Dec'20

Research Intern with Brain group

Worked on information retrieval from location based social network (LBSN).

Indian Statistical Institute, Kolkata

Jan'20 - Aug'20

Research Intern under Prof. Anisur Molla

Worked on smoothed analysis of distributed leader election algorithm.

Indian Institute of Science, Bangalore

Feb'19-Sep'19

Project Assistant under Prof. Chandra Murthy

Worked on reconstructing location-unaware samples by non-convex optimization techniques.

Indian Institute of Technology, Madras

May-Jul'17, Jul-Dec'18

Project Assistant under Prof. Uday Khankhoje

Developed an adaptive resolution based algorithm for inverse imaging via microwave scattering with application to tumor detection.

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.