DISHA SHUR

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Research interests: Embedding algorithms for data structured into graphs and higher-order networks.

Education and Skills

Purdue University   **2020 – 2022**

M.S., Electrical and Computer Engineering, 3.70/4
Thesis: PageRank Embedding, advised by Prof. David Gleich
Key Courses: Artificial Intelligence, Introduction to Deep Learning, Algorithmic Economics, Numerical Computing in Data Science, Linear Algebra and Application, Advanced algorithms for networks, Machine Learning and Algorithms Seminar

Indian Institute of Engineering Science and Technology, Shibpur   **2014–2018**

B.Tech., Electronics and Telecommunication Engineering, 8.34/10, First class with honours
Key Courses: Mathematics I,II,III, Signal Processing, Information and Fuzzy Systems, Electromagnetic Theory, Principle of Analog and Digital Communication, Soft Computing

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

Publications

1. Anisur Rahaman Molla*, **Disha Shur***, "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).

2. **Disha Shur**, K. Yaswanth, Uday K Khankhoje,"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*

* Alphabetical order.

Relevant Projects and Research Experience

Purdue University, West Lafayette   **Jan'21 -**

Research Assistant with Prof. David Gleich
Working on localized 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

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.

Funding/Achievements

WiML Workshop, NeurIPS 2020, 2021   **Nov'21, Nov'20**
Awarded registration fee funding for WiML workshop co-located in NeurIPS 2021

Google Computer Science Research Mentorship Programme   **Sep'21**
Mentorship by Google engineers and research scientists on current research methodologies and determining career pathway in Computer Science research.

Graduate Teaching Assistantship   **Aug'21 - Dec'21**
Tuition fees waiver for Fall 2021 semester

Graduate Research Assistantship   **Jan'21 - Jul'21**
Tuition fees waiver for Spring and Summer 2021 semesters

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 IIEST (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 the WBJEE, 2014.

Army Welfare Education Society (AWES)   **Mar'13**
Education Scholarship Scheme for Serving Army Personnel (ESSA) was conferred by AWES for academic records.