DISHA SHUR

dshur@purdue.edu - dishashur.github.io

Research interests: Localized algorithms for data for graphs and higher-order networks

Education and Skills

Purdue University 2020 – 2022

M.S. - Thesis, Electrical and Computer Engineering, 3.64/4

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

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*

* Order determined alphabetically

Relevant Projects and Research Experience

Purdue University, West Lafayette Jan'21 -

Research Assistant with Dr. David Gleich

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

Algorithmic Economics Jan'21 - May'21

Coursework under Dr. Alex Psomas

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

Artificial Intelligence Aug'20-Dec'20

Coursework under Dr. 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 Dr. Anisur Rahaman Molla

Worked on smoothed analysis of distributed leader election algorithm.

Indian Institute of Science, Bangalore Feb'19-Sep'19

Project Assistant under Dr. Chandra R 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 Dr. Uday K 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), Electrical and Computer Engineering

Working as a TA for ECE301-Signals and Systems with 120 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

Achievements

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.

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 held in 2014.

Army Welfare Education Society (AWES) Mar'13

Girl Child Achiever's scholarship was conferred by AWES for exemplary academic records through out school.

Co-curricular

- **ECE Graduate Student Association (ECEGSA), Purdue University**: Won the prize for Graduate Student Appreciation conducted by ECEGSA for water color paintings.
- **Women in Machine Learning(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.
- **Former member, IIEST Robotics Society**: Conducted classes and competitions on manual robotics for beginners.
- **Former member, IIEST Debating Society**: Represented the institute at inter-college debates.
- **Co-founding member, IIEST Literary Society**: Developed a society concerned with literature and its appreciation.