

EDUCATION

- **Indian Institute of Technology, Kharagpur, West Bengal**
Ph.D in Computer Science and Engineering; GPA: 9.5/10 Jan. 2021 – Current
- **Indian Institute of Science, Bengaluru, Karnataka**
Master of Technology(Research) in Computational & Data Science; GPA: 7.35/10 Aug. 2017 – Jan. 2020

WORK EXPERIENCE

- **Huawei Technologies India Pvt. Ltd., Bengaluru, Karnataka**
Technical Project Leader; Cloud & AI Business Line March 2020 – January 2021
* Developed query optimization features for the OPENLOOKENG data virtualization engine (open-source).

PROJECTS

- **Ph.D Thesis** Dept. of CSE, IIT, Kharagpur
Evaluation of Bias in various User-Interfaced Systems Jan. 2021 – Current
* Evaluation of intersectional bias in commercial Face Recognition Systems under adversarial conditions.
* Evaluation of bias in visual search by e-commerce platforms for non-binary clothing.
* Evaluation of various forms of bias along the dimensions of users, sellers and the platform for search and recommendation on e-commerce sites.
- **M.Tech(Research) Thesis** Dept. of CDS, IISc, Bengaluru
Streaming Partitioning and Distributed Analytics on Large Graphs Aug. 2017 – Jan. 2020
* Developed partitioning heuristics for large streaming graphs with over 130M edges using topological motifs which perform 9X better than the baseline strategies.
* Developed a partition-centric distributed algorithm to identify the Eulerian circuit on large graphs with over 500M edges.
- **Course Mini Projects**
 - Delayed Impacts of the Gender Shades Project Dept. of CSE, IIT, Kharagpur
* Evaluation of Intersectional Bias across ethnicity, gender, age and other dimensions in commercial Face Detection APIs over multiple face image datasets.
 - Development of a miniature Inception network Dept. of CSE, IIT, Kharagpur
* Development, training and evaluation of accuracy for a small inception network for the CIFAR-10 Image dataset.
 - Vertex-Centric Path Identification Algorithm Dept. of CDS, IISc, Bengaluru
* Development of a vertex-centric variant of Minimal On-Road Time Route Scheduling algorithm on Time-Dependent Graphs and implementation on Apache Giraph.

PUBLICATIONS

- **Marching with the Pink Parade: Evaluating Visual Search Recommendations for Non-binary Clothing Items**
Accepted at ACM CHI 2022 (Case Studies) New Orleans, USA & Hybrid
- **Two-Face: Adversarial Audit of Commercial Face Recognition Systems**
Accepted at AAAI ICWSM 2022 Atlanta, USA & Hybrid
- **A Partition-centric Distributed Algorithm for Identifying Euler Circuits in Large Graphs**
Presented at HPBDC 2019, co-located with IPDPS 2019 20th May, 2019, Rio de Janeiro, Brazil

RELEVANT COURSEWORK

Indian Institute of Technology

- AI & Ethics
- Deep Learning
- High Performance Scientific Computing

Indian Institute of Science

- Scalable Systems for Data Science
- Game Theory
- Introduction to Scalable Systems

PROGRAMMING SKILLS

• **Languages:** Python, Java, C++

Libraries: Scikit-learn, Numpy, Scipy, Pytorch, Matplotlib

RESEARCH INTERNSHIPS

• **Online Algorithms for Facility Location Problem**

ACMU, Indian Statistical Institute, Kolkata
June 2015 – July 2015

- * Development of an Online Algorithm for placing a new server amongst an existing configuration of servers and customers given certain constraints. A conjecture and an algorithm are suggested based on observations of some test cases.

• **Approximation Algorithms for DVRP on Trees**

ACMU, Indian Statistical Institute, Kolkata
December 2014

- * Development of an approximation bound for Distance Constrained Vehicle Routing Problem on trees. Also proved that the Distance Constrained Vehicle Routing Problem on a Tree is NP Complete.

ACHIEVEMENTS AND FELLOWSHIP

- Attended the 1st Greek ACM-W Chapter Winter School on Fairness in AI, 2022, Online
- Presented a poster, "STEM: STreaming Edge Partitioner based on Motifs" at the 2nd R-CCS International Symposium, 2020, RIKEN Centre for Computational Science, Kobe, Japan
- Attended the 4th R-CCS HPC Youth Workshop, 2020, RIKEN Centre for Computational Science, Kobe, Japan
- Presented a poster, "Incremental Algorithms for PageRank and k-core on Dynamic Graphs" at Student Research Symposium, HiPC 2017, Jaipur, India
- Awarded the Microsoft Data Science Fellowship 2017 by Microsoft India, for the duration of 2017-19 instituted at Dept. of CDS, IISc, Bengaluru
- Secured AIR 24 in JEST 2017

EXTRACURRICULAR ACTIVITIES

- Teaching Assistant(Jan-Apr 2022), CS60016: AI & Ethics, Dept. of CSE, IIT, Kharagpur
- Teaching Assistant(Aug-Nov 2021), CS29003: Algorithms Lab, Dept. of CSE, IIT, Kharagpur
- Teaching Assistant(Mar-June 2021), CS19003: Programming and Data Structures Lab, Dept. of CSE, IIT, Kharagpur
- Teaching Assistant(Aug-Dec 2019), DS221: Introduction to Scalable Systems, Dept. of CDS, IISc, Bengaluru
- Student Volunteer- ACM FAccT 2021, ACM CSCW 2021, NeurIPS 2021, WWW 2022
- Student Member, ACM & SIGCHI
- Member, IEEE Student Branch, IISc, Bengaluru
- Student General Secretary, IEEE Student Branch Chapter, Tezpur Central University
- Organizer of TEDxTezpurUniversity held in April, 2014.

I declare that all the information provided above is true to my knowledge. References can be provided on request.