

## EDUCATION

- **Indian Institute of Technology, Kharagpur, India** **Prime Minister's Research Fellowship Awardee**  
5th yr Ph.D in Computer Science and Engineering; GPA: 9.5/10 Jan. 2021 – Oct. 2025 (*expected*)
- **Indian Institute of Science, Bengaluru, India** **Microsoft Data Science Fellowship Awardee**  
Master of Technology(Research) in Computational & Data Science Aug. 2017 – Jan. 2020

## WORK EXPERIENCE

- **Josh Talks AI**  
Research Consultant  
\* Consulting for a project on benchmarking of VLMs for Indian cultural artifacts. May 2025 – June 2025  
\* Consulting as an AI expert for an AI curriculum for middle-school children in India. July 2025 – August 2025
- **AI Safety Asia & Cooperative AI Foundation**  
Group Facilitator; Online course on CAI-Asia Edition March 2025 – May 2025  
\* Facilitate group discussions, evaluating assignments and helping with the smooth conduct of the course.
- **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).

## COMPLETED &amp; ONGOING RESEARCH

- **Ph.D Thesis** Dept. of CSE, IIT, Kharagpur  
Audit and Mitigation of Social Biases in Human-Interfaced AI Systems Jan. 2021 – Current  
\* Audit and mitigation of intersectional bias in **Face Recognition Systems** under adversarial conditions through data-centric interventions.  
\* Audit of bias in visual search for *non-binary individuals'* clothing on **e-commerce platforms**.  
\* Audit and mitigation of bias in **text-based gender analyzers** through data-centric and model-centric interventions, focussing on *non-binary individuals'*.  
\* Generation of synthetic diverse, realistic & privacy-preserving face datasets using **VLMs** and **T2I Diffusion models**.
- **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.

## PUBLICATIONS

- **Exploring Disparity-Accuracy Trade-offs in Face Recognition Systems: The Role of Datasets, Architectures, and Loss Functions**  
Published at AAAI ICWSM 2025 [Proceeding] Copenhagen, Denmark
- **Mask-up: Investigating Biases in Face Re-identification for Masked Faces**  
Under submission; [Arxiv]
- **Breaking the Global North Stereotype: A Global South-centric Benchmark Dataset for Auditing and Mitigating Biases in Facial Recognition Systems**  
Published at AAAI/ACM AIES 2024 [Proceeding] San Jose, USA
- **Auditing Gender Analyzers on Text Data**  
Published at IEEE/ACM ASONAM 2023 [Proceeding] Kusadasi, Turkey
- **A History of Diversity in the Web (Conference)**  
Published at The ACM WebConference 2023 (Companion) [Proceeding] Austin, USA
- **Marching with the Pink Parade: Evaluating Visual Search Recommendations for Non-binary Clothing Items**  
Published at ACM CHI 2022 (Case Studies) [Proceeding] New Orleans, USA & Hybrid
- **Two-Face: Adversarial Audit of Commercial Face Recognition Systems**  
Published at AAAI ICWSM 2022 [Proceeding] Atlanta, USA & Hybrid

- **Triparts: Scalable Streaming Graph Partitioning to Enhance Community Structure.**  
Published at VLDB 2025; [Proceeding] London, UK
- **DENOASR: Debiasing ASRs through Selective Denoising**  
Published at IEEE ICKG 2024; [Proceeding] Abu Dhabi, UAE
- **A Deep Dive into the Disparity of Word Error Rates Across Thousands of NPTEL MOOC Videos**  
Published at AAAI ICWSM 2024 [Proceeding] Buffalo, USA
- **Platform Governance: Past, Present and Future**  
Published in ACM GetMobile: Mobile Computing and Communications 26 (1) 2022 [Journal]
- **A Partition-centric Distributed Algorithm for Identifying Euler Circuits in Large Graphs**  
Published at HPBDC 2019, co-located with IEEE IPDPS 2019 [Proceeding] Rio de Janeiro, Brazil

## RESEARCH INTERNSHIPS

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- **Explainable Audits for Face Recognition Systems** L3S Research Centre, LUH, Germany  
August 2023 – November 2023  
\* Development of semantically explainable audits for the task of face matching in Face Recognition Systems.
- **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 (DVRP) on Trees. Also proved that the Distance Constrained Vehicle Routing Problem on a Tree is NP Complete.

## PROGRAMMING SKILLS

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- **Languages:** Python, Java, C++
- **Libraries:** Scikit-learn, Numpy, Pandas, Pytorch, Matplotlib

## RELEVANT COURSEWORK

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### IIT Kharagpur

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

### IISc Bengaluru

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

## VISITS, FELLOWSHIPS & AWARDS

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### Visits

- Presented posters at ACM India ARCS Symposium, 2025 (Coimbatore) and 2024 (Bhubaneswar)
- Presented a poster, “Audit & Mitigation of Gender Biases in Human-AI Platforms” at ICPR 2024 DC, India
- Presented a poster, “Uncovering Gender Biases in Human-AI Platforms” at AIES 2024 Student Program, USA
- Attended the 1st ACM India Pingala Interactions in Computing 2024, Mysore, India
- Presented a poster, “Uncovering Biases in Face Recognition Systems” at ECAI 2023 Doctoral Symposium, Poland
- Attended the Mediterranean Machine Learning (M2L) Summer School, 2023, Thessaloniki, Greece
- Attended Indian Symposium on Machine Learning, 2022 (IIT Gandhinagar) and 2023 (IIT Bombay)
- Attended Google Research Week by Google Research India, 2023, Bengaluru, India
- Attended the AI Ethics and Governance (Turing Commons) Training by The Alan Turing Institute, 2022, Online
- Attended the 1st Greek ACM-W Chapter Winter School on Fairness in AI, 2022, Online
- Presented a poster, “STEM: STrimming Edge Partitioner based on Motifs” at the 2nd R-CCS International Symposium and 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

### Fellowships

- Awarded the Prime Minister’s Research Fellowship (PMRF) [January 2022] by MoE, Govt. of India for PhD studies.
- Awarded the Microsoft Data Science Fellowship [August 2017] by Microsoft India for M.Tech(Research) studies.

## Awards & Travel Grants

- Awarded the ACM India IARCS Travel Grant to attend AAAI ICWSM, 2025 in Copenhagen, Denmark
- Awarded the AAAI ICWSM-25 Student Travel Grant to attend AAAI ICWSM, 2025 in Copenhagen, Denmark
- Outstanding Poster at ICPR 2024 Doctoral Consortium
- Awarded AAAI AIES Travel Grant to attend AAAI/ACM AIES 2024 in Santa Clara, USA
- Awarded ACM India Travel Grant to attend ACM-I PIC 2024, ACM-I ARCS 2024 & ACM-I ARCS 2025
- Awarded IndoML Travel Grant to attend IndoML 2022 & 2023
- Awarded Google Research India Travel Grant to attend Google Research Week 2023
- Awarded the Microsoft Research India Travel Grant to attend the ACM WebConference, 2023 in Austin, USA
- Awarded the ACM India IARCS Travel Grant to attend the ACM WebConference, 2023 in Austin, USA
- Awarded the IEEE TCSS Travel Grant to attend IEEE IPDPS, 2019 in Rio de Janeiro, Brazil

## TALKS

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- Presentation on “Exploring Disparity-Accuracy Trade-offs in Face Recognition Systems: The Role of Datasets, Architectures, and Loss Functions” at 19th AAAI ICWSM, 2025, Copenhagen, Denmark
- Podcast (AI Truth Ethics Podcast) on “The Asimov Fallacy: Rethinking AI Ethics in a World of Inevitable Harm” with Alex Tsakiris. 2024
- Tutorial on “AI & Ethics” at 10th International Conference on Pattern Recognition and Machine Intelligence (PReMI) 2023, Kolkata, India
- Presentation on “A History of Diversity in The Web (Conference)” at 32nd ACM The Web Conference (History of the Web), 2023, Austin, USA
- Presentation on “Marching with the Pink Parade: Evaluating Visual Search Recommendations for Non-binary Clothing Items” at ACM CHI (Case Studies), 2022, Virtual
- Podcast (Panoptic Talks) on “Identifying the Bias in Facial Recognition Technology” with the Internet Freedom Foundation, India. 2021

## EXTRACURRICULAR ACTIVITIES & SERVICE

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- Reviewer– AAAI (2026), AAAI ICWSM (2026), AAAI/ACM AIES (2025, 2024), ACM MM (2025), IJCAI(2025), ACM CSCW (2024, 2023), ACM TheWebConference (2024)
- Teaching Assistant(Jan-Apr 2025), CS21004: Formal Language and Automata Theory, Dept. of CSE, IIT, Kharagpur
- Teaching Assistant(Aug-Nov 2024), CS60092: Information Retrieval, Dept. of CSE, IIT, Kharagpur
- Teaching Assistant(Jan-Apr 2024), CS21004: Formal Language and Automata Theory, Dept. of CSE, IIT, Kharagpur
- Teaching Assistant(Jan-Apr 2023), CS60016: AI & Ethics, Dept. of CSE, IIT, Kharagpur
- Teaching Assistant(Nov 2022-Jan 2023), CS10003: Programming and Data Structures, Dept. of CSE, IIT, Kharagpur
- 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, 2022), ACM CSCW (2021, 2022), NeurIPS 2021, WWW 2022
- 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.