

Priya Mishra

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EDUCATION

STANFORD UNIVERSITY

MS IN COMPUTER SCIENCE

Expected June 2023

IIT KANPUR

BTECH IN ELECTRICAL ENGINEERING

CGPA: 9.8/10

Minors: Computer Systems, Machine Learning, Linguistic Theory

Grad. May 2021

LINKS

Github: [Priya2698](#)

LinkedIn: [priya-mishra](#)

Google Scholar: [Priya Mishra](#)

Homepage: [Priya2698.github.io](#)

COURSEWORK

Principles of Computer Systems

Parallel Computing

Principles of Database Systems

Data Mining

Machine Learning for Signal Processing

Introduction to Machine Learning

Data Structures and Algorithms

Bioinformatics and Computational Biology

Fundamentals of Computing

SKILLS

Python • C • C++ • PyTorch • MPI

TEACHING

Computational Neuroscience

Neuromatch Academy | July 2021

WORKSHOPS

NMA Computational Neuroscience

Summer school including lectures, tutorials and project on topics of computational neuroscience

High-performance computing

Winter school on various topics of HPC and parallel programming

ACTIVITIES

Student Guide, IIT Kanpur | 2018-19

Music Club, IIT Kanpur | 2017-18

EXPERIENCE

DE-BIASING AUTONOMOUS VEHICLE DATA

FUTURE DATA SYSTEMS LAB, STANFORD UNIVERSITY

Dr. Fiodar Kazhemiaka, Prof. Matei Zaharia | Oct 2021 – Present

- Working on removing **sampling bias** in data collected from autonomous vehicles

MEERKAT: DATAPANELS FOR MACHINE LEARNING

HAZY RESEARCH LAB, STANFORD UNIVERSITY

Prof. Chris Ré | Jun 2021 – Present

[Github]

- Working on Meerkat, a **new data library** for machine learning datasets.
- Implemented a ML module to integrate Meerkat with PyTorch and HuggingFace models. Added custom column types for segmentation models.

ENERGY DISAGGREGATION

RESEARCH INTERN, DATAMOVE, INRIA

Prof. Denis Trystram | Jun 2020 – Aug 2020

- Collaborated with **Qarnot**, a **green cloud computing company**, to design an **energy disaggregation** algorithm for their **smart buildings**.
- Developed and demonstrated an optimization-based approach using Qarnot's power consumption data.

IMPROVING SCHEDULING USING RUNTIME PREDICTIONS

RESEARCH INTERN, DATAMOVE, INRIA

Prof. Denis Trystram | May 2020 – Jun 2020

- Worked on **scheduling a set of non-clairvoyant jobs** on parallel machines
- Demonstrated the impact of classifying jobs into short and long on scheduler performance.
- Developed classification models to **predict the class of submitted jobs** based on user history and job characteristics.

COMMUNICATION-AWARE JOB SCHEDULING

SCALABLE PARALLEL COMPUTING LAB, IIT KANPUR

Prof. Preeti Malakar | May 2019 – April 2020

[Github]

- Researched **node-allocation algorithms** for communication-intensive jobs.
- Implemented new scheduling algorithms that **reduced inter-switch communication** in SLURM. Proposed a novel way of optimizing based on the communication patterns of **MPI collectives**.
- Published in ICPP Workshops.

PUBLICATIONS

Communication-aware Job Scheduling using SLURM ICPP Workshops | Aug 2020

Priya Mishra, Tushar Agrawal, Preeti Malakar

[PDF](#) | [Slides](#) | [Talk on Youtube](#)

AWARDS

- 2021 **Gargi Award** for highest CPI among UG females in the engineering dept
- 2018-20 **Academic Excellence Award** for outstanding academic performance
- 2017 **All India Rank 917** amongst 0.17 million candidates in JEE Advanced
- 2017 **All India Rank 264** amongst 1.2 million candidates in JEE Mains
- 2015, 2016 **Kishore Vaigyanik Protsahan Yojana (KVPY) Fellow**
- 2015 Scholar of **National Talent Search Examination**