

# Uddalok Sarkar

Indian Statistical Institute, Kolkata

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## EDUCATION

- **Indian Statistical Institute** 2022 –  
*Ph.D., Computer Science*  
Advisor: Prof. Sourav Chakraborty  
Advanced Computing and Microelectronics Unit
- **Indian Statistical Institute** 2020 – 2022  
*M.Tech., Computer Science, Percentile: 88.8%*
- **Jadavpur University** 2015 – 2019  
*B.E., Electrical Engineering, CGPA: 8.72/10*

## RESEARCH INTERESTS

Property Testing  
Verification  
Distribution Testing

## THESIS & PUBLICATIONS

- **Thesis**
  1. Masters Thesis: *On Testing of Horn Samplers*, Indian Statistical Institute, 2022.
- **Conference**
  1. *Testing of Horn Samplers* - Joint work with Ansuman Banerjee, Shayak Chakraborty, Sourav Chakraborty, Kuldeep S. Meel, Uddalok Sarkar, Sayantan Sen. (*Accepted for Oral Presentation in Artificial Intelligence and Statistics (AISTATS) (2023)*)

## AWARDS & HONOURS

- Received *ISIAA - Rashi Ray Memorial Medal for outstanding performance in M.Tech (CS) Programme (2020-22)* from Indian Statistical Institute, Kolkata.

## RESEARCH EXPERIENCE

- **Advanced Computing and Microelectronics Unit** Indian Statistical Institute, Kolkata
  - Master's Thesis
    - Supervisor: Prof. Sourav Chakraborty, Indian Statistical Institute, Kolkata
    - Focus: Property Testing.

## TEACHING EXPERIENCE

- **Indian Statistical Institute**
  - Computing Laboratory (Teaching assistant) 2022
  - Specification and Verification of Programs (Teaching assistant) 2022

## TECHNICAL SKILLS

- **Languages & frameworks**  
Python, Tensorflow, Pytorch, Qiskit, Cirq, TensorFlow Quantum (TFQ)  
C, C++ | NuSMV | MATLAB, Simulink

## PAST RESEARCH EXPERIENCE

- **Digital Audio Processing Lab** Indian Institute of Technology Bombay, India
  - Research Intern (May – Jul 2018)
    - Project: Structural Segmentation of Hindustani Dhrupad Vocal Concerts
    - Supervisor: Prof. Preeti Rao, Electrical Engineering Department, IIT Bombay
    - Focus: Music Information Retrieval, Audio Signal Processing.
- **C.V. Raman School of Physics and Music** Jadavpur University, Kolkata, India
  - Undergraduate Research Student
    - Supervisor: Dr. Dipak Ghosh, Professor Emeritus, Jadavpur University
    - Focus: Cognitive Neuroscience, Speech Signal Analysis, Music Information Retrieval.

## REFERENCES

- **Prof. Sourav Chakraborty**  
Associate Professor, Advanced Computing and Microelectronics Unit (ACMU), Indian Statistical Institute  
mail id: sourav@isical.ac.in

**Prof. Ansuman Banerjee**

Associate Professor, Advanced Computing and Microelectronics Unit (ACMU), Indian Statistical Institute  
mail id: ansuman@isical.ac.in

**Prof. Arijit Ghosh**

Assistant Professor, Advanced Computing and Microelectronics Unit (ACMU), Indian Statistical Institute  
mail id: arijitiitkgpster@gmail.com

**INTERESTS**

**Music**

I am currently studying Jazz and Progressive Rock music. I am also interested in Folk music.

*I have recently directed music of a folk short film Pathshala - The Inception of Pursuit.*

**Photography, Filming.**