SASWAT DAS

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Responsible AI, (Differential) Privacy, Fairness, Security

Education

University of Virginia (UVA)	**Aug. 2023 – Present**
Ph.D. in Computer Science	*Charlottesville, Virginia*
National Institute of Science Education and Research (NISER)	**Jul. 2018 – May 2023**
Integrated M.Sc. (BS + MS) in Mathematics (Minor in Computer Science)	*Bhubaneswar, India*

Experience

EECS, Syracuse University **June 2022 – July 2023**
Visiting Research Scholar *Syracuse, NY*
- Mentor: Dr. Ferdinando Fioretto (now at UVA)
- Focus Areas: Differential Privacy, Fairness, Responsible AI

School of Computer Sciences, NISER **Aug. 2021 – May 2023**
MS Research Scholar *Bhubaneswar, India*
- Mentor: Dr. Subhankar Mishra
- Focus Areas: Differential Privacy, Security, Responsible AI

School of Computer Sciences, NISER **Dec. 2019 – Jan. 2020**
BS Winter Research Intern *Bhubaneswar, India*
- Mentor: Dr. Rishiraj Bhattacharyya (Now at the University of Birmingham)
- Focus Areas: Blockchain, P2P Networks, Cryptography, Zero-Knowledge Proofs

School of Computer Sciences, NISER **May 2019 – July 2019**
BS Summer Research Intern *Bhubaneswar, India*
- Mentor: Dr. Rishiraj Bhattacharyya (Now at the University of Birmingham)
- Focus Areas: Blockchain, P2P Networks, Cryptography

Publications/Preprints/Book Chapters

Privacy and Bias Analysis of Disclosure Avoidance Systems **2023**
Ferdinando Fioretto, Keyu Zhu, *Saswat Das*, Pascal van Hentenryck, Christine Task
Older Preprint: https://arxiv.org/abs/2301.12204

MIPS: Revealing Privacy Violations in Prototype Selection **2023**
Saswat Das, Subhankar Mishra
Pending Resubmission: Mail for Preprint

Advances in Differential Privacy and Differentially Private Machine Learning: A Survey **2023**
Saswat Das, Subhankar Mishra
Accepted as a Book Chapter: *Information Technology Security (Springer Nature)*

Service/Reviewing

- **Reviewer - AAMAS 2023**
- **Program Committee Member - AAAI 2024**
- **External Reviewer - National Institute of Standards and Technology (NIST) (2023)**

Selected Honours/Achievements

- Shortlisted for the **ELLIS Europe PhD Programme (2023)**
- **DISHA Fellowship, Department of Atomic Energy, Government of India (2018-2023):** Received a scholarship for attending college which includes a monthly stipend for food and lodging and an annual contingency grant for research endeavours.
- Selected for the **Winter School on Theoretical Computer Science** at **IIT Delhi (2022)**
- Selected for the prestigious **TIFR – Visiting Students' Research Programme (VSRP), 2022** in **Technology & Computer Science**
- **National Talent Search (NTS) Scholarship**, NCERT, India **(2016)**

Teaching/Volunteering

CodeInPlace, Stanford University
Apr. 2021 - May 2021
Section Leader/Teaching Assistant — *Online; Organised by Stanford University*
- Taught coding to a section of students from a global pool of applicants using material from the first half of Stanford University's popular course, CS106A.

School of Mathematical Sciences, NISER
Feb. 2021 - May 2021
Department Mathematics Tutor — *At NISER*
- Served as a mathematics tutor to freshmen in the spring of 2021 as part of an initiative by mathematics majors at the School of Mathematical Sciences, NISER.

Aveti Learning
Apr. 2020 - Sep 2022
Volunteer/Tutor/Mentor — *Online*
- Served as an online mathematics tutor and mentor to high school students in rural Eastern India to make quality education and college advice more accessible.

Avanti Fellows
Sep. 2018 - Aug. 2019
Section Leader/Teaching Assistant — *Dhenkanal, India*
- Served as a mentor and mathematics tutor to high school students at JNV Dhenkanal as part of the acclaimed Avanti Fellows programme.

Workshops and Summer/Winter Schools

Technion: Summer School on Computer & Cyber Security
September 2020
Attendee — *Organised by Technion, Israel*

IIT-D: Winter School on Theoretical Computer Science
December 2022
Accepted Attendee — *Organised by IIT-Delhi*
- Did not attend due to academic schedule conflicts.

USENIX SOUPS '23: Workshop on Privacy Threat Modeling
August 2022
Presenter/Attendee — *Organised by MITRE at USENIX SOUPS 2023*
- Presented a short paper on context-aware fair privacy threat modeling.

Leadership / Extracurricular

Undergraduate Committee of the School
Dec. 2020 - Dec. 2022
Student Representative — *School of Mathematical Sciences, NISER*
- Served as one of two student representatives to the Undergraduate Committee of the School (UGCS) of Mathematical Sciences, NISER, an honour bestowed upon well-performing students by the school.
- Helped professors design and develop the academic course structure, pedagogy, and evaluation schemes of the undergraduate programme.

Inventa Magazine
July 2021 - Dec. 2021
Editor — *IISERs, NISER, CeBS, and IISc (India)*
- Worked on the editorial board for Inventa, an annual national science outreach magazine published jointly by the premier public research institutes of India: NISER, CeBS, IISc, and the IISERs.

Quizone (Campus Quiz Club), NISER
May. 2019 - Nov. 2021
President — *NISER*
- Served as the president of Quizone, the quiz club of NISER, HBNI, for two consecutive terms.
- Organised and hosted quizzes (online and offline), which involved planning and running logistics, making questions, maintaining a social media presence for the club, engaging with partners and sponsors etc.
- Helped codify club rules and regulations by drafting a club constitution.

Cultural Committee, NISER
Aug. 2019 - Nov. 2021
Editor — *NISER*
- Served as a member of the cultural committee of NISER, which is responsible for planning and organising cultural events in the college.

Delhi Public School Kalinga
Sep. 2016 - July 2018
Head Boy (Students' Council President) — *Odisha, India*
- Served as the Head Boy (2017-18) and Vice Head Boy (2016-17) of Delhi Public School Kalinga, in a role which involved representing the school on an interschool level, presiding over the students' council, organising events, and looking after the welfare and interests of the students of the school.

Skills (Not Exhaustive)

Programming/Scripting Languages: Python, R, C++, HTML/CSS, SQL, LaTeX
Developer Tools: VS Code, SLURM, AWS Cloud, R Studio, etc.
Selected Libraries: Opacus, OpenDP/SmartNoise, PyTorch, Captum, sdcMicro + other common libraries
Languages: English, Hindi, Odia, (familiarity with) French