Tanusree Sharma
Curriculum Vitae

Informatics Department
School of Information Sciences
University of Illinois at Urbana Champaign
Champaign, IL, 61820, USA

Email: tsharma6@illinois.edu
Website:https://tanusreesharma.github.io/
Twitter: @Tanusree_Sharma

Research Interests

Decentralized Governance, Emerging Technology (Web3, AI), Usable Security and Privacy, Human-Computer Interaction (HCI), Democratic AI, Accessibility, Organizational Technology

Education

Ph.D. Candidate in Informatics   2019- July 2024
University of Illinois at Urbana Champaign, *Champaign, IL*
  Informatics Dept, School of Information Sciences
  Advisor: Yang Wang
  Committee: Andrew Miller, Dawn Song, Sauvik Das, Yun Huang

B.S. in Computer & Information Technology   2016
  Jahangirnagar University, *Dhaka, Bangladesh*
  Department of Computer & Information Technology

Employment

University of Illinois at Urbana Champaign, Graduate Research Assistant   2019–Present

  Project: Inclusive.AI to engage marginalized groups in AI Design (Funded by OpenAI)

Max Planck Institute, Research Intern   May-Aug 22
  Advisor: Asia J. Beiga; Lab: Responsible Computing Group
  Project: Operationalizing Data Minimization in AI System from User-Centered Approach

Google, Privacy Engineer Intern   May-Aug 21
  Lab: SFDC Privacy Group
  Project: Data Driven Automated Privacy Risk Review tooling for Data Transparency in Google Product

University of Houston, Research Assistant   Aug 18 -May 19
  Advisor: Albert Cheng; Lab: Real Time System (RTS) Lab
  Project: Real Time Task Scheduling for Traffic Routing with Re-enforcement Learning Approach

European Union, Software Engineer   Feb 18 -July 18
  Project: Digital Health Management Scheme for Developing Countries

Bangladesh ICT Ministry, Research Assistant   July 17 -Feb 18
  Project: Design and developed a model of E-Governance Application for People Identity Verification in Cloud by deep neural network and system architecture with REST API.

Selected Honors and Awards

Democratic inputs to AI by OpenAI - Awarded $110,000 (PhD Dissertation Work)	2023
SIGCHI Gary Marsden Travel Grant 2023 - Awarded $2500	2023
IC3 Blockchain Summit Student Travel Award - Awarded $2,000	2023
Plurality Student Travel Award - Awarded $1,500	2023
Graduate College Travel Grant-$1000	2023
Graduate College Travel Grant 2022, UIUC, Awarded $1250	2022
Nomination by UIUC Grad College for Google PhD Fellowship	2022
Nomination by UIUC Grad College for Apple AI/ML PhD Fellowship	2022
Virtual Grace Hopper Celebration Scholarship 2021 - Awarded / Sponsored by Google $1500	2021
CSRMP Scholar-Google's CS Research Mentorship Program	2021
Graduate College Travel Grant 2020, UIUC, Awarded $1000	2020
Best Paper Award on 9th International Conference on the Internet of Things	2020

Publications

[C.21]   **Tanusree Sharma, Lin Kyi, Yang Wang, Asia Biega**
(To be appeared Usenix 24)

[C.20]   **Disability-first Design and Creation of A Dataset Showing Private Visual Information Collected with People Who are Blind.**
Tanusree Sharma, Abigale Stangl, Lotus Zhang, Yu-Yun Tseng, Inan Xu, Leah Findlater, Danna Gurari, Yang Wang. *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI23).*

[C.19]   **User Perceptions and Experiences of Targeted Ads on Social Media Platforms: Learning from Bangladesh and India.**
Tanusree Sharma, Smirity Kaushik, Yaman Yu, Syed Ishtiaque Ahmed, Yang Wang. *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI23)*

[C.18]   **A Mixed-Methods Study of Security Practices of Smart Contract Developers**.
Tanusree Sharma, Zhixuan Zhou, Andrew Miller, and Yang Wang.
32nd USENIX Security Symposium (USENIX Security 23)

[C.17]   **Iterative Design of An Accessible Crypto Wallet for Blind Users**
Tanusree Sharma*, Zhixuan Zhou*, Luke Emano, Sauvik Das, Yang Wang.
Symposium on Usable Privacy and Security (SOUPS 2023)

[C.16]   **Rethinking Data Minimization from a {User-Centered} Approach: A Paradigm**
Tanusree Sharma, Lin Kyi, Yang Wang, Asia Beiga. *USENIX PEPR 23*

[C.15]   **{GuardLens}: Supporting Safer Online Browsing for People with Visual Impairments.**
Smirity Kaushik, Natã M. Barbosa, Yaman Yu, **Tanusree Sharma**, Zachary Kilhoffer, JooYoung Seo, Sauvik Das, and Yang Wang.
Symposium on Usable Privacy and Security (SOUPS 2023).

[C.14]   **A First Look into Software Security Practices in Bangladesh.**
Tanusree Sharma*, Ankit Shrestha*, Pratyasha Saha, Syed Ishtiaque Ahmed, Mahdi Nasrullah Al-

Ameen.
ACM Journal on Computing and Sustainable Societies (ACM COMPASS 23)

[C.13]   **ChatGPT in HCI Research—A Trioethnography.**
Tanusree Sharma*, Smit Desai*, Pratyasha Saha*.
Proceedings of the 5th International Conference on Conversational User Interfaces (ACM CUI 23)

[C.12]   **It's A Blessing and A Curse": Unpacking Creators' Practices with Non-Fungible Tokens (NFTs) and Their Communities.**
Tanusree Sharma, Zhixuan Zhou, Yun Huang, and Yang Wang.
Crypto Economics Security Conference (CESC 22)

[C.11]   **Privacy during pandemic: A global view of privacy practices around COVID-19 apps.**
Tanusree Sharma, Md Mirajul Islam, Anupam Das, SM Taiabul Haque, and Syed Ishtiaque Ahmed.
In ACM SIGCAS Conference on Computing and Sustainable Societies. (ACM COMPASS 21)

[C.10]   **Mapping risk assessment strategy for covid-19 mobile apps' vulnerabilities.**
Tanusree Sharma, Hunter A. Dyer, Roy H. Campbell, and Masooda Bashir.
Proceedings of the 2021 Computing Conference.

[C.9]   **Enabling user-centered privacy controls for mobile applications: COVID-19 perspective.**
Tanusree Sharma, Hunter A. Dyer, and Masooda Bashir.
ACM Transactions on Internet Technology (TOIT) 2021

[C.8]   **Use of apps in the COVID-19 response and the loss of privacy protection.**
Tanusree Sharma, and Masooda Bashir.
Nature Communication 2020.

[C.7]   **Advocating for users' privacy protections: a case study of COVID-19 apps.**
Tanusree Sharma, Tian Wang, and Masooda Bashir.
Human-Computer Interaction with Mobile Devices and Services. (MobileHCI 20)

[C.5]   **Towards inclusive privacy protections in the cloud**
Tanusree Sharma, Tian Wang, Carlo Di Giulio, and Masooda Bashir.
In *Applied Cryptography and Network Security Workshops. (ACNS 20)*

[C.5]   **Preserving Privacy in Cyber-physicalsocial Systems: An Anonymity and Access Control Approach**
Tanusree Sharma, John Bambenek, Masooda Bashir.
Proceedings of International Conference on the Internet of Things 2019. **Best Paper Award**

[C.4]   **Privacy apps for smartphones: An assessment of users' preferences and limitations.**
Tanusree Sharma, and Masooda Bashir.
In *HCI for Cybersecurity, Privacy and Trust. (HCII20)*

[C.3]   **A restful e-governance application framework for people identity verification in cloud**
Ahmedur Rahman, Shanto Roy, **Tanusree Sharma**, Md Whaiduzzaman
In *Cloud Computing–CLOUD 2018*

[C.2]   **PSO-NF based vertical handoff decision for ubiquitous heterogeneous wireless network (UHWN)**
Saoreen Rahman, **Tanusree Sharma**, S. M. Reza, M. M. Rahman, and M. S. Kaiser.
In *2016 International Workshop on Computational Intelligence (IWCI)*, pp. 153-158. IEEE, 2016.

[C.1]   **A dynamic data placement policy for heterogeneous hadoop cluster.**
Tushar Saha. **Tanusree Sharma**
In *2017 4th International Conference on Advances in Electrical Engineering (ICAEE)* (pp. 302-307).
IEEE.

Grants and Gifts

OpenAI: Democratic inputs to AI
Co-Investigator with Yang Wang, Yun Huang. Awarded $110,000
Team: Tanusree Sharma, Yang Wang, Yun Huang, Dawn Song, Jeff Hancock, Sunny Liu

Meta, *Social Media Advertisement Technology Design for Global South* $100,000
PhD Student Project Lead with PI: Yang Wang

Students Advised & Mentored

Hunter dyer (UIUC, now PhD Student, George Washington University)   Spring 2020
- *Worked on a security assessment for COVID-19 applications.*

Jessica Mack (REU at UIUC)   Summer 2022
- Worked on Smart Contract Developer Security Practices Survey

Kornrapat Pongmala (UC Berkeley, now at TikTok)   Fall 2022
- *Benchmarking and building assessment metrics for Decentralized Autonomous Organization.*

Luke Emano (UIUC, now Founder at Timely)   Fall 2022
- *Worked on designing crypto wallet accessibility for blind users*

Inan Xu (UC Santa Cruz)   Summer 2023
- *Worked on building tool for private images and videos obfuscation design*

Henry Wang (UIUC High School Student)   Fall 2023
- *Worked on Usable crypto wallet design with MFKDF protocol.*

Melinda Hu (High School Student)   Fall 2023
- *Worked on exploring At Ethics and design for youth*

Justin Wang (High School Student)   Fall 2023
- *Worked on exploring At Ethics and design for youth*

Jongwon Park (UIUC)   Fall 2023
- *Worked on building tool for Democratic input to AI*

ATM Mizanur Rahman (BUET, Bangladesh)
- *Worked on navigating perceived risk among cryptocurrency users in Bangladesh*   Fall 2023
Silvia Sandhi (Jahangirnagar University, Bangladesh)   Fall 2023
- *Worked on navigating perceived risk among cryptocurrency users in Bangladesh*

Selected Talks and Seminars

[T.8]   **Trustworthy and Democratic Design for Emerging Technologies.**
Invited talk at Arizona State University,
Host: Rakibul Hasan, in person Oct 24, 2023

[T.7]   **Inclusive.AI: Democratic Tooling to engage underserved population in AI**
Invited talk at OpenAI, San Francisco, CA,

Host: OpenAI, in person Sept 28, 2023

[T.6]   **Rethinking Data Minimization in AI System from a User-Centered Approach: A Paradigm Shift.**
Invited talk at Usenix Privacy Engineering Practice and Respect 2023 (PEPR 23) at Santa Clara, CA
Host: Usenix Association, in person Sept 11-12, 2023

[T.5]   **Utilizing DAO Tooling for non-DAO context: Democratic input to AI**
Invited Talk at DAO workshop at Science of Blockchain conference at Stanford University
Host: Stanford Center for Blockchain Research, DAO Research Collective
In person, Aug. 31, 2023

[T.4]   **Workings and metrics to evaluate Decentralized Autonomous Organizations (DAOs).**
Invited Talk at IC3 Blockchain Camp, Cornell Tech
Host: Initiative for CryptoCurrencies and Contracts (IC3)
In person Jun 12-17, 2023

[T.3]   **Women in Computing & Higher studies**
Invited Talk at IEEE Computer Society Bangladesh Chapter
Host: Risala Tasin Khan
Virtual Visit, July 22, 2023

[T.2]   **DAOs as early adopters: How DAOs work in practice and could be utilizing plural technologies in governance and collaboration**
Invited Session Lead at Plurality Conference 2023 at UC Berkeley
Host: Glen Weyl & Audrey Tang
In person, Jan. 13-15, 2023

[T.1]   **BIV-Priv Dataset: Disability-First Design and Creation of a Dataset with Private Visual Information Collected With People Who Are Blind**
Invited Talk at iSchool Research Showcase
Host: UIUC iSchool, Nov 15, 2022

Teaching Assistant

INFO- 490: Python for Data Science
Python programming language within the context of solving data driven problems (i.e., Data Science).
IS-457: Introduction to Data Science
Collecting and using data from a variety of sources, including the web, in a modern statistical inference and visualization paradigm.
COSC- 3306/6310: Operating System
Process/task/thread management, scheduling, deadlock-handling, memory management, file systems, networking, security issues, and embedded/real-time operating systems (RTOS).
COSC- 4377: Computer Network
Design and implement networked applications and services.

Invited Guest Lectures

Evaluation Method of User Data   Fall 2023
IS 236A: User Research & Evaluation
Host: Yang Wang
University of Illinois at Urbana Champaign, School of Information Sciences

Method for Designing & Prototyping   Fall 2023
IS 226: Introduction to HCI

Host: Yun Huang
University of Illinois at Urbana Champaign, School of Information Science

DAO as Blockchain Governance   Spring 2022
ECE 598: Principle of Blockchain
Host: Pramod Viswanath
University of Illinois at Urbana Champaign, Department of Electrical and Computer Engineering

Practice of Decentralized Autonomous Organizations   Spring 2022
IS 400: Research Colloquium
Host: Ted Underwood
University of Illinois at Urbana Champaign, School of Information Sciences

Media Coverage

Forbes 2020
Privacy Risks of COVID-19 Application, published in Nature Communication 2020
Meta Grant 2020
Social media advertising and privacy in Global South – Covered by iSchool UIUC.
OpenAI Grant 2023
Democratic Input to AI – Covered by iSchool UIUC.

Professional Service

Academic Service

Organizing Committee
2024 CHI Chair Assistant
2023 CHI Chair Assistant
Workshop Organizer
WIPS Workshop on Inclusive Privacy and Security, SOUPS 2023
WIPS Workshop on Inclusive Privacy and Security, SOUPS 2022

Session Chair
SOUPS Workshop on Inclusive Privacy and Security 2023 on Understudied & Innovative Session
Conference Reviewer
ACM CHI (2021-2024), **ACM CSCW** (2021-2024), **IMWUT** (2023), **ACM DIS**
(2023), **ACM MobileHCI** (2023), ACM COMPASS (2023)

🏵 Received "special recognitions" for outstanding reviews for ACM CSCW 2022, ACM CHI 2023, ACM
CHI 2023 Late Breaking Work, IMWUT 2023, CSCW 2024

Journal Reviewer
IEEE Transactions on Dependable and Secure Computing (2022-2023), **IEEE Access** (2022)

Community Service

Co-Chair, ACM-W UIUC chapter (2021-2022)
Privacy Testing, Safer Illinois App, UIUC, 2020
MOOC Classes for Underserved Community in Bangladesh of 7k+ Students (2019-now)

Technical Skills

Programming Languages: C, Java, Python, R, JavaScript, SQL, HTML and others
UX Skills: Qualitative Research, Quantitative Research, Experiment Design, UX Design, Prototype Development,
Usability Testing