MAAZ BIN MUSA

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Education

University of Iowa	**Aug. 2019 – June 2024**
PhD in Computer Science	*Iowa City, Iowa*

Experience

Research Assistant   **Aug 2019 – Present**
SPARTA Lab in University of Iowa   *Iowa City, Iowa*
- Designed frameworks for **auditing privacy and compliance online**
- Studied an organizations data collecting and sharing practices.
- Measured the compliance practices of these organizations to determine if user rights are upheld or not

Research Intern   **May 2022 – Aug 2022**
ICSI Lab   *Berkeley, California*
- Lead an investigation on first-party tracking prevalence. Post third-party depreciation
- Quantified collusion between publishers and advertisers facilitated via **first-party cookies**

Research Assistant   **Aug 2018 – Aug 2019**
TPI Lab in LUMS   *Lahore, Pakistan*
- Collaborated on internet measurement projects with a focus on auditing data flows online
- Created and deployed **honeypots for online malicious / tracking entities**
- Built pipelines using selenium and python to leak personal identifiers and monitor how they were used / misused

Selected Publications

Forms of Disclosure | *The Path to Automated Data Privacy Audits*   **June 2023**
- Evaluated CCPA compliance of 400 data brokers using Natural Language Processing toolkit
- Fine-tuned an LLM to build and predict CCPA related text in privacy policies
- Published in Harvard Journal of Law and Technology

ATOM | *Ad-Network Tomography*   **July 2022**
- Uncovered undisclosed relationships between trackers and advertisers with 100% accuracy
- Converted ad content to quantifiable vectors using NLP
- Leveraged ad personalization as a vantage point for uncovering server side relationships.
- Published in Privacy Enhancing Technologies Symposium (PETS) 2022
- **Runner-up for the Andreas Pfitzmann best student paper award**

CanaryTrap | *Detecting Data Misuse by Third-Party Apps on Online Social Networks*   **July 2020**
- Designed a matrix based scalable honeytrap to uncover server side data sharing.
- Caught 16 entities misusing user data for ransomware and personalized advertisement.
- Published in Privacy Enhancing Technologies Symposium (PETS) 2020

Talks and Presentations

Privacy Hygiene | *Society of Privacy, Law and Technology*   **Sep 2023**
- Taught a graduate level class surrounding basic online privacy hygiene

Graduate Research Symposium | *Empowering Transparency & Accountability in the online world*   **Nov 2023**
- Presented my PhD research to incoming graduate students

DataSkeptic | *Ad-tech series*   **Jul 2022**
- Discussed the impact and consequences of my paper ATOM on a podcast series on Advertising technology and privacy

Awards & Honors

3MT 2023 | *Peoples choice award*   **Nov 2023**
- Successfully presented my research work to general audience under 3 minutes

Travel grant | *PoPETs*   **Aug 2022**
- Awarded $1500 travel grant to attend PET's 2022 in Australia

Research Projects

SoK | *Optimizing privacy policy compliance analysis*   **Present**
- Exploring obstacles and opportunities in compliance analysis using privacy policies
- Identifying impactful phases of compliance measurement

CPP Dataset | *Privacy policy dataset for CCPA*   **Present**
- Interpret CCPA requirement mandates
- Analyze CCPA mandates extracted from privacy policies by domain experts

Relevant Coursework

- Online Advertising and Tracking
- Privacy and Anonymity
- Web Mining
- Privacy, Law and Technology
- Design and Analysis of Algorithms
- Information Retrieval
- Data structures
- Object Oriented Programming