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