Muhammad Ahmad Bashir (Curriculum Vitae)

Privacy Engineer @ Google
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Research Interests

Security and privacy on web/mobile; internet measurement; limiting fraud and abuse

Education

2014-2019 **Ph.D.** in Computer Science - *Northeastern University, Boston, MA*

2008-2012 **B.S** in Computer Science - *LUMS, Lahore, Punjab, Pakistan*

Relevant Courses: *Machine Learning, Advanced Algorithms, Computer Security, Intensive Computer Systems*

Employment History

Google (Privacy Engineer)	Feb '21 - Present
International Computer Science Institute (Postdoctoral Research Fellow)	OCT '19 - Jan '21
Facebook Inc. (Security Engineering Intern / Threat Infrastructure)	JUN '17 - SEP '17
Facebook Inc. (Security Engineering Intern / Online Safety)	May '16 - Aug '16
Max Planck Institute for Software Systems, Germany (Research Intern)	OCT '12 - JAN '13

Key Skills

Programming Languages	Python, JavaScript, SQL, Java, Hack, C++, R, MATLAB
Web Development	Nodejs, Express, React, Django, HTML5, CSS
Miscellaneous	Spark, Web Automation (e.g. Selenium), Browser Extension Development

Honors and Awards

2018 Best Student Paper Award **(FPF Privacy Papers for Policymakers)**

2015 Best Paper Award **(Conference on Online Social Networks)**

2015 Best Paper Award **(Conference on Security and Cryptography)**

2012 Research Intern Fellowship **(Max Planck Institute for Software Systems)**

2011 Winner **(Ericsson – PTA Mobile Excellence Award)**

2011 Winner **(FPF Privacy Papers for Policymakers)**

Teaching Experience

Fall 2018	Teaching Assistant / Guest Lecturer **(CS3700- Networks and Distributed Systems)**
Spring 2018	Teaching Assistant / Guest Lecturer **(CS2550- Foundations of Cybersecurity)**
Spring 2013	Teaching Assistant **(CS585: Service Oriented Computing)**
Fall 2012	Teaching Assistant **(CS582: Distributed Systems)**
Spring 2012	Teaching Assistant **(CS380: Databases)**

Selected Publications

IMC '19 **A Longitudinal Analysis of the ads.txt Standard**

- A 15-month long study analyzing the adoption of the `ads.txt` standard by Alexa-100K websites.

NDSS '19 **Quantity vs. Quality: Evaluating User Interest Profiles Using Ad Preference Managers**

- First large-scale study of the "interests" inferred by ad networks using Ad Preference Managers.
- We investigate how these interests were inferred and how useful they were according to the users.

IMC '18 **How Tracking Companies Circumvented Ad Blockers Using WebSockets**

- First large-scale study of the "interests" inferred by ad networks using Ad Preference Managers.
- We investigate how these interests were inferred and how useful they were according to the users.

PETS '18 **Diffusion of User Tracking Data in the Online Advertising Ecosystem**

- We model how user tracking data propagates in the advertising ecosystem because of RTB.
- We model the efficacy of ad and tracker blocking extensions at protecting users' privacy.

IMC '16 **Recommended For You: A First Look at Content Recommendation Networks**

- First look at how content (ads and recommendations) is served by CRNs.
- Highlights the inconsistencies in how the content is served and calls for stronger regulations.

USENIX '16 **Tracing Information Flows Between Ad Exchanges Using Retargeted Ads**

- Proposes a generic methodology to detect information sharing between ad networks.
- Detects 31% of cookie matching partners which were missed by prior methods.

COSN '15 **Strength in Numbers: Robust Tamper Detection in Crowd Computations**

- Detection of large-scale (Sybil-tampered) crowd computations in Online Social Networks.
- Dataset consists of roughly 300M Twitter users and 30K businesses with 341K reviews from Yelp.

USENIX '14 **Towards Detecting Anomalous User Behavior in Online Social Networks**

- Detection of anomalous identities, using PCA, on Facebook used in diverse attack strategies.
- Includes a case study on Facebook Ads to detect anomalous clicks.