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Yash Vekaria

Research Interests

Web Security & Privacy; Ad-fraud; Internet Measurements; Web Tracking; Applied Machine Learning.

Current Ongoing Research

My research is aimed at studying the caveats in online advertisement ecosystem.

Ad Inventory Fraud: Building on the recent work, this one focuses to measure perceptions of ad-tech entities (publishers, ad-exchanges and brands) towards the Ad Inventory Fraud at large-scale through vulnerability notifications.

Problematic Ads on Social Media: The objective of this work is to detect and study the problematic ads run on social media platforms like Twitter through an automated audit.

Employment

2021–Present	**University of California, Davis, USA**, *Graduate Student Researcher* Advisor: Prof. Zubair Shafiq
Summer 2022	**Max Planck Institute für Informatics, Saarbrücken, Germany**, *Visiting Research Fellow* Advisor: Prof. Savvas Zannettou
Spring 2022	**University of California, Davis, USA**, *Teaching Assistant*, ECS 152A Professor: Prof. Zubair Shafiq
2020–21	**Innovaccer**, *Data Analyst*
2019	**Innovaccer**, *Decision Science Intern*
2017–19	**The LNMIIT, India**, *Teaching Assistant*
2017	**National Ilan University, Taiwan**, *Student Exchange AI Intern*

Education

2021–Present	**Ph.D. in Computer Science**, *4.00/4.00* University of California, Davis
2016–20	**B.Tech. in Computer Science**, *9.04/10.00* The LNM Institute of Information Technology (LNMIIT), India.

Honors & Awards

2016–2018	**Merit Scholarships**, *The LNM Institute of Information Technology, India* Awarded to Top 5% students with GPA greater than 9.
2019	**Spot Award**, *Innovaccer, India* Quarterly Award for optimization of data model from 10 hrs to 3 hrs.

Skills

Python, SQL, Network Measurements, Data Scraping, Data Science and ML, Text processing

Publications

arXiv
2022
The Inventory is Dark and Full of Misinformation: Understanding the Abuse of Ad Inventory Pooling in the Ad-Tech Supply Chain
Yash Vekaria, Rishab Nithyanand, Zubair Shafiq
Under Submission, 2022

WebSci
2021
Differential Tracking Across Topical Webpages of Indian News Media
Yash Vekaria*, Vibhor Agarwal*, Pushkal Agarwal, Sangeeta Mahapatra, Sakthi Balan Muthiah, Nishanth Sastry, Nicolas Kourtellis (*first co-authors*)
13th ACM Web Science Conference, 2021

ICWSM
2021
Under the Spotlight: Web Tracking in Indian Partisan News Websites
Vibhor Agarwal*, **Yash Vekaria***, Pushkal Agarwal, Sangeeta Mahapatra, Sakthi Balan Muthiah, Nishanth Sastry, Nicolas Kourtellis (*first co-authors*)
15th International AAAI Conference on Web and Social Media (ICWSM), 2021
Acceptance rate: 22.4% (30/134)

RCIS
2021
A Metadata-based Event Detection Method using Temporal Herding Factor and Social Synchrony on Twitter Data
Nirmal Kumar Sivaraman, Vibhor Agarwal, **Yash Vekaria**, Sakthi Balan Muthiah
15th International Conference on Research Challenges in Information Science (RCIS), 2021

SocInfo
2019
Poster Acceptance Invitation: Event Detection in Twitter
Nirmal Kumar Sivaraman, Vibhor Agarwal, **Yash Vekaria**, Sakthi Balan Muthiah
11th International Conference on Social Informatics (SocInfo), 2019

Travel Grants

2022 **22nd Privacy Enhancing Technologies Symposium (PETS)**

2022 **15th ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec)**

2021 **42nd IEEE Symposium on Security and Privacy (S&P)**

2021 **34th IEEE Computer Security Foundations Symposium (CSF)**

Teaching

2022 **Computer Networks (ECS 152A)**, *Teaching Assistant*
University of California, Davis, USA

2019 **Data Structures & Algorithms**, *Teaching Assistant*
The LNM Institute of Information Technology, India

2018 **Computer Organization & Architecture**, *Teaching Assistant*
The LNM Institute of Information Technology, India

2017 **Computer Programming**, *Teaching Assistant*
The LNM Institute of Information Technology, India

Invited Talks

2021 **Differential Tracking Across Topical Webpages of Indian News Media**
The LNM Institute of Information Technology, India

Selected Media Coverage

Mar 2021 **Tracking the Trackers (Open The Magazine)**, *Ullekh NP*, [Link]

References

Prof. Zubair Shafiq
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Webpage: `https://web.cs.ucdavis.edu/~zubair/`

Prof. Savvas Zannettou
Assistant Professor, TU Delft, Netherlands
Email: s.zannettou@tudelft.nl
Webpage: `https://zsavvas.github.io`

Prof. Sakthi Balan Muthiah
Associate Professor, The LNM Institute of Information Technology, India
Email: sakthi.balan@lnmiit.ac.in
Webpage: `http://sakthibalan.in/`

Dr. Nicolas Kourtellis
Research Scientist, Telefonica Research Labs, Spain
Email: nicolas.kourtellis@telefonica.com
Webpage: `https://www.concordia-h2020.eu/nicolas-kourtellis/`

Prof. Nishanth Sastry
Professor, University of Surrey, England
Email: n.sastry@surrey.ac.uk
Webpage: `https://www.surrey.ac.uk/people/nishanth-sastry`