Dhruv Kuchhal

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 $\begin{array}{c} \text{July 3, 2023} \\ \underline{\text{LinkedIn}} \\ \text{Google Scholar} \end{array}$

RESEARCH INTERESTS

Developing large-scale measurement techniques to study real-world web security and privacy.

EDUCATION

Georgia Institute of Technology

Atlanta, GA

Doctor of Philosophy in Computer Science. Advised by Prof. Frank Li.

2019 - 2023 (expected)

Guru Gobind Singh Indraprastha University

Bachelor of Technology in Information Technology.

Delhi, India 2014 - 2018

SELECTED PUBLICATIONS

Conference

• Kuchhal, D., Ramakrishnan, K., and Li, F., Whatcha Lookin' At: Investigating Third-Party Web Content in Popular Android Apps. Currently under review.

• Kuchhal, D., Saad, M., Oest, A., and Li, F., Evaluating the Security Posture of Real-World FIDO2 Deployments. Currently under review.

• Kuchhal, D. and Li, F.,

A View into YouTube View Fraud.

ACM Web Conference (WWW), 2022.

Acceptance Rate: 17.7% (323/1822) [dl.acm.org] [pdf] [video]

• Kuchhal, D. and Li, F.,

Knock and Talk: Investigating Local Network Communications on Websites.

ACM Internet Measurement Conference (IMC), 2021.

Acceptance Rate: 27% (53/196) [dl.acm.org] [pdf] [video]

• Redmiles, E.M., Maszkiewicz, L., Hwang E., **Kuchhal, D.**, Liu, E., Morales, M., Peskov, D., Rao, S., Stevens, R., Gligorić, K., Kross, K., Mazurek, M.L., Daume III, H.,

Comparing and Developing Tools to Measure the Readability of Domain-Specific Texts.

Conference on Empirical Methods in Natural Language Processing (EMNLP), 2019.

Acceptance Rate: 23.8% (684/2877) [aclweb.org] [pdf]

• Redmiles, E.M., Zhu, Z., Kross, S., Kuchhal, D., Dumitras, T. and Mazurek, M.L.,

Asking for a Friend: Evaluating Response Biases in Security User Studies.

ACM Conference on Computer and Communications Security (CCS), 2018.

Acceptance Rate: 16% (134/809) [dl.acm.org] [pdf] [video]

• Gupta, S., Kuchhal, D., Gupta, P., Ahamad, M., Gupta, M. and Kumaraguru, P.,

Under the Shadow of Sunshine: Characterizing Spam Campaigns Abusing Phone Numbers Across Online Social Networks*.

ACM Conference on Web Science (WebSci), 2018.

Acceptance Rate: 27% (30/113) [dl.acm.org] [pdf]

Award: Runner up for Best Student Paper

• Gupta, S., Bhatia, G., Suri, S., **Kuchhal, D.**, Gupta, P., Ahamad, M., Gupta, M. and Kumaraguru, P., **Angel or Demon? Characterizing Variations Across Twitter Timeline of Technical Support Campaigners.**

The Journal Of Web Science, 2019 [webscience-journal.net] [pdf]

EXPERIENCE

PayPal, Inc.

Scottsdale, AZ

Information Security PhD Intern

Summers of 2021 & 2022

- Managers: Dr. Adam Oest and Dr. RC Johnson.
- \circ Work: Studied real-world attacks and defenses of FIDO2-based passwordless authentication.
- Ecosystem Impact: Reported a bug in Google Chrome that could be exploited to trick a user enrolled in WebAuthn into authenticating an attacker-controlled sensitive action on their account. [Chromium Issue 1341134]

University of Maryland (UMD)

College Park, MD

Research Assistant at Security, Privacy, People Lab (SP2)

2017 - 2018

- Area: Usable Privacy and Security.
- o Advisors: Prof. Michelle Mazurek and Prof. Elissa Redmiles.
- o Projects:
 - * Measuring and improving readability of security advice.
 - * Evaluating response biases in security user studies.

Indraprastha Institute of Information Technology, Delhi (IIIT-D)

Delhi, India

Undergraduate Researcher and Research Associate at PreCog Research Lab

2017 - 2019

- Area: Social Computing Security and Privacy on Online Social Networks (OSNs).
- $\circ\,$ ${\bf Advisor}:$ Prof. Ponnurangam Kumaraguru (now moved to IIIT-Hyderabad).
- o Projects:
 - * Detecting cross-platform spam on online social networks.
 - $*\ \ Detecting\ and\ mitigating\ misinformation\ on\ WhatsApp. \underline{[technical\ details,\ press]}$

RELEVANT GRADUATE COURSEWORK

Computer Networks, Network Security, Empirical Measurement/Security, Secure Computer Systems, Malware Reverse Engineering, Machine Learning, Deep Learning, Graduate Algorithms and Applied Cryptography.

Teaching

- CS6035 Information Security, 2022: TA with Prof. Paul Pearce and Prof. Daniel Genkin.
- CS6262 Network Security, 2020: TA with Prof. Wenke Lee. Redesigned the Network Monitoring project.

ACHIEVEMENTS/HONORS

- RSAC Security Scholar 2023: Selected among 50 cybersecurity students across US to attend the RSA Conference.
- Conference Travel Grants: Awarded funds to travel to and attend ACM CCS 2018 and PETS 2022.
- USC Annenberg Fellowship, 2019: Received a 4-year fellowship of USD 34k/yr to pursue a PhD in CS at USC.
- Smart India Hackathon, 2017: Our team of 6 members advised by <u>Dr. Sambuddha Roy</u> won the first prize at India's national hackathon (10k+ students), with a cash prize of Rs. 1 lakh awarded by Government of India. [GitHub]
- Recognition of Service Award ACM, 2016: For serving as founding Chair for ACM-MAIT Student Chapter.

SERVICE

- PETS: External reviewer, 2022-2023. Publication co-chair, 2023-2024. PC Member, 2024.
- Georgia Tech School of Cybersecurity and Privacy: Member, Faculty Recruiting Committee, 2022.
- Georgia Tech Student Employee Advisory Board: Board Member, 2021-22 AY.
- Georgia Tech School of Computer Science: Founding Communications Chair of GSA, 2021-22 AY.
- India Club at Georgia Tech: Board member, 2020-21 AY.