

Dhruv Kuchhal

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[LinkedIn](#)

[Google Scholar](#)

RESEARCH INTERESTS

I'm interested in working on real-world computer security and privacy problems, often involving measuring, analyzing and understanding large-scale data. Most recently, I have focused on web security and privacy.

EDUCATION

- **Georgia Institute of Technology** Atlanta, GA
Doctor of Philosophy in Computer Science Aug 2019 – Dec 2023 (expected)
- **Guru Gobind Singh Indraprastha University** Delhi, India
Bachelor of Technology in Information Technology 2014 – 2018

SELECTED PUBLICATIONS

CONFERENCE

- **Kuchhal, D.**, Saad, M., Oest, A., and Li, F.,
The Pitfalls of Real-World FIDO2 Deployments: Evaluating, Attacking, and Hardening Passwordless Authentication.
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

JOURNAL

- 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.
 - **Work:** Exploring deployment efficacy of passwordless authentication (FIDO2).
 - **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]
- **Georgia Institute of Technology (Georgia Tech)** Atlanta, GA
Graduate Research Assistant *2020 - present*
 - **Area:** Empirical Measurement, Security and Privacy.
 - **Advisor:** Prof. Frank Li.
 - **Projects:**
 - * Investigating local network communications on websites.
 - * Investigating the YouTube view fraud ecosystem.
- **University of Maryland (UMD)** College Park, MD
Research Assistant at Security, Privacy, People Lab (SP2) *2017 - 2018*
 - **Area:** Usable Privacy and Security.
 - **Advisors:** Prof. Michelle Mazurek and Prof. Elissa Redmiles.
 - **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).
 - **Advisor:** Prof. Ponnurangam Kumaraguru (now moved to IIIT-Hyderabad).
 - **Projects:**
 - * Detecting cross-platform spam on online social networks.
 - * Detecting and mitigating misinformation on WhatsApp. [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

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

ACHIEVEMENTS/HONORS

- **RSA Security Scholar 2023:** Selected among 50 cybersecurity students across US to attend the RSA Conference.
- **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 Dr. Sambuddha Roy 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 from ACM, 2016:** Founding Chair for ACM-MAIT Student Chapter.
- **Conference Travel Grants:** Awarded funds to travel to and attend ACM CCS 2018 and PETS 2022.

SERVICE

- **PETS:** External reviewer, PETS 2022-23. Publication co-chair, PETS 2023-24.
- **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.