

# Dhruv Kuchhal

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[LinkedIn](#)

[Google Scholar](#)

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## 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.

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## EDUCATION

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

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## SELECTED PUBLICATIONS

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### 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**

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### 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

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- **PayPal, Inc.** Scottsdale, AZ  
*Information Security PhD Intern* *Summers of 2021 & 2022*
  - **Managers:** Dr. Adam Oest and Dr. RC Johnson.
  - **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.
  - **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

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

## TEACHING

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- **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

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- **RSA 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 [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 - ACM, 2016:** For serving as founding Chair for ACM-MAIT Student Chapter.

## SERVICE

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- **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.