



# Digital Overground

**Cybersecurity and Privacy Institute Student Newsletter**



Without further ado, we humbly present the August edition of Digital Underground, for your consideration. For those of you who had classes this spring semester, we hope they went well. For those of you who got to enjoy a leisurely summer of rest and relaxation with no academic concerns, we will try not to resent you too much! 😊

This month's edition has an interesting new opportunity at NVIDIA, as well as our usual slate of media and research links.

CPI would also like to remind everyone that the following classes in the Fall 2023 semester are eligible for the [CPI Undergraduate Award](#): AFM 347, CO 487, CS 458, GBDA 303, GBDA 414, SOCI/LS 305, SOC/LS 413, and SOC/LS 435 .

Please take a moment to review this page as it lists the other classes for future semesters that will also be eligible for these awards.

For those who are interested in contributing to this newsletter, please email us at [CPI Students <cpi.students@uwaterloo.ca>](mailto:cpi.students@uwaterloo.ca) we would welcome the help!

## Upcoming Events

[2023 Cybersecurity and Privacy Institute Annual Conference  
w/ CPI Students Conference Poster Session](#)

[UW Food Truck Wednesday](#)

[Frosh Ball / Waterloo / 2023](#)

[Mystical Witches Night Market in Waterloo!](#)

[Frosh Icebreaker](#)

[Jobs Canada Career Fair](#)

[Waterloo's 2023 Back 2 School Glow Party](#)

[Yoga in the Park](#)

## Student Support and Resources

[Campus Wellness and Counselling Services](#)

[CPI for Students](#)

[Current Students Pathways](#)

[CPI Undergraduate Award](#)

[CPI Excellence Graduate Scholarship](#)

[The Vector Digital Talent Hub](#)

## Research

[Poirot: Probabilistically Recommending Protections for the Android Framework](#)

Zeinab El-Rewini - Zhuo Zhang - CPI Member Yousra Aafer

[DedupBench: A Benchmarking Tool for Data Chunking Techniques](#)

Alan Liu - Abdelrahman Baba - Sreeharsha Udayashankar  
- CPI Member Samer Al-Kiswany

[Chinese Wall or Swiss Cheese?](#)

[Keyword filtering in the Great Firewall of China](#)

Raymond Rambert - Zachary Weinberg  
- CPI Member Diogo Barradas - Nicolas Christin

[ML Models for Detecting QoE Degradation in Low-Latency Applications: A Cloud-Gaming Case Study](#)

Joël Roman Ky - Bertrand Mathieu –  
Abdelkader Lahmadi - CPI Member Raouf Boutaba

## Open Calls

[NVIDIA Graduate Fellowship Program](#)

[2023 IEEE 9<sup>th</sup> Information Technology International Seminar \(ITIS\)](#)

The [Vector Digital Talent Hub](#) encourages students to create profiles on their website to apply for a variety of employment opportunities. | Vector Institute

USENIX Security '23 [Call for Papers](#)

[CSITAI 2023 : International Conference on Computer Science, Information Technology & AI](#)

[ICITST 2023 : International Conference for Internet Technology and Secured Transactions](#)

[CyberHunt 2023 : 6th Annual Workshop on Cyber Threat Intelligence and Hunting](#)

[WatITis 2023](#)

## In the Media

- Podcast of the Month: [Cyber Security Today: This episode reports on a hole in the naming policies of modules developers can put in Microsoft's PowerShell Gallery, lessons from a honeypot test and more](#)
- [How Do You Secure Critical Systems? - Behind the Firewall w/ Sebastian Fischmeister](#)
- [What is Authorization and Access Control? - Behind the Firewall w/ Mahesh Tripunitara](#)
- [What is Temu? Shopping app that didn't exist 4 months ago now a source of privacy concerns](#)
- [CPI Member Gautam Kamath receives Faculty of Math Golden Jubilee Research Excellence Award](#)
- [Lindsey Tulloch & Ian Goldberg win best student paper award at privacy symposium](#)
- [Q and A with the experts: What is watermarking? - Waterloo professor Florian Kerschbaum discusses the effectiveness of watermarking AI-generated content](#)
- [Tesla Discloses Data Breach Related to Whistleblower Leak](#)
- [Apple Ships Urgent iOS Patch for WebKit Zero-Day](#)
- [The Internet Is Turning Into a Data Black Box. An 'Inspectability API' Could Crack It Open](#)
- [Compliance Automation: Your Audit Experience Before and After](#)

## Student Spotlight

CPI would like to congratulate [Sajin Sasy](#) on being awarded the 2023 [CPI Cybersecurity and Privacy Excellence Graduate Scholarship](#) sponsored by MasterCard.

Seen anything that you think should be on this list for our next edition? Let us know!

[CPI Students <cpi.students@uwaterloo.ca>](mailto:cpi.students@uwaterloo.ca)



### ***Don't Be a Tattle-Tale: Preventing Leakages through Data Dependencies on Access Control Protected Data***

Primal Pappachan<sup>†‡</sup>, **Shufan Zhang<sup>\*</sup>**, Xi He<sup>\*</sup>, Sharad Mehrotra<sup>†</sup>

<sup>†</sup> University of California Irvine <sup>‡</sup> Pennsylvania State University <sup>\*</sup> University of Waterloo



The August Student Spotlight highlights the work of Shufan Zhang and their project entitled “[Don't Be a Tattle-Tale: Preventing Leakages through Data Dependencies on Access Control Protected Data](#)”. The team study the problem of answering queries when (part of) the data may be sensitive and should not be leaked to the querier. They identify conditions under which full deniability can be achieved and develop an efficient algorithm that minimally hides non-sensitive cells during query processing to achieve full deniability. They then experimentally show that their approach is practical and scales to an increasing proportion of sensitive data, as well as to increasing database size.

**[Find Out More about Digital Overground](#)**

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