



Digital OverGround

Cybersecurity and Privacy Institute Student Newsletter



Hello folks, we hope your Fall term is going swimmingly and that you had a fun Halloween and you are enjoying the mild weather!

As many of you gear up for your exams and end of semester projects, we wish you the very best of luck and encourage you to remember that taking a break here and there will help you focus and maintain some level of sanity!

We trust that this month's newsletter may provide some interesting and informative distraction.

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

Upcoming Events

[Things to Do in Waterloo Region in November](#)

[Holiday Markets in Waterloo Region](#)

[TH'OWXIYA: The Hungry Feast Dish](#)

[2024 Eco Summit: Finding opportunity in complex times](#)

[Tech Horizons Executive Forum](#)

[Introduction to GIS: Using ArcGIS for Research](#)

[Mapping Out the Global Innovation Landscape Conference](#)

[WaterTalk | Wastewater process intensification](#)

[CVIS 2024 - 10th Annual Conference on Vision and Intelligent Systems](#)

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

[Monarch: Monitoring Architecture for 5G and](#)

[Beyond Network Slices](#)

Niloy Saha, Nashid Shahriar, Muhammad Sulaiman, Noura Limam,

CPI Member Raouf Boutaba, & Aladdin Saleh

[MOCODA: Model-based Counterfactual Data](#)

[Augmentation](#)

Silviu Pitis, CPI Member Elliot Creager, Ajay Mandlekar, & Animesh Garg

Towards Environment-Invariant Representation Learning
for Robust Task Transfer

Benjamin Eyre, Richard Zemel, & CPI Member Elliot Creager

PRAC: Round-Efficient 3-Party MPC
for Dynamic Data Structures

CPI Member Sajin Sasy, Adithya Vadapalli, & CPI Member Ian Goldberg

SoK: Privacy-Preserving Reputation Systems

Stan Gurtler & CPI Member Ian Goldberg

Mind the Gap: Ceremonies for Applied Secret
Sharing

CPI Member Bailey Kacsmar, Chelsea H. Komlo,
CPI Members Florian Kerschbaum, & Ian Goldberg

Catch a Blowfish Alive: A Demonstration of Policy-Aware
Differential Privacy for Interactive Data Exploration

Jiaxiang Liu, Karl Knopf, Yiqing Tan, Bolin Ding, & CPI Member Xi He

Open Calls

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

[ICITST 2024 : International Conference for Internet Technology and Secured Transactions](#)

[New York Annual Conference on Cyber Security 2024](#)

[December 14-15, 2024.](#)

[New York City](#)

[International Journal on Cybernetics & Informatics \(IJCI\)](#)

[WatITis 2024 Conference](#)

In the Media

- [**Podcast of the Month: Cybersecurity Today: Cybersecurity Today: GitHub Attacks & Microsoft's November Patch Tuesday Updates - Jim Love highlights critical cybersecurity updates. The episode covers malicious attacks on GitHub projects, including an orchestrated attempt to frame Texas-based security researcher Mike Bell, and the associated impact on open-source repositories. Additionally, Microsoft's November Patch Tuesday is discussed in detail, with over 90 security issues disclosed, including four critical zero-day vulnerabilities. The episode also addresses a new**](#)

ransomware strain exploiting vulnerabilities in Veeam backup software, and the disruptions caused by Microsoft's flawed Exchange Server security update.

- Elon Musk: AI will run out of electricity and transformers in 2025
- DON'T DO THIS: Revealing biggest mistakes in data visualization
- Mind-Blowing New AI Video Generator: Text to Video AND Image to Video with Pika Labs
- US Gathers Allies to Talk AI Safety as Trump's Vow to Undo Biden's AI Policy Overshadows Their Work
- Ford Blames Third-Party Supplier for Data Breach
- Cybersecurity Awareness: Reflecting on 20 Years of Defense Evolution and Preparing for Future Threats
- Homeland Security Department Releases Framework for Using AI in Critical Infrastructure
- The US is Preparing Criminal Charges in Iran Hack Targeting Trump, AP Sources Say
- GitHub Launches Fund to Improve Open-Source Project Security

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

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Student Spotlights

Nika: Anonymous Blackout-Resistant Microblogging with Message Endorsing

Our November Student Spotlight features the CPI Poster competition 2nd place winner, **Sina Kamali** Supervisor: Diogo Barradas CS, with their work entitled: [Nika: Anonymous Blackout-Resistant Microblogging with Message Endorsing](#)

Repressive governments are increasingly resorting to Internet shutdowns to control the flow of information during political unrest. In response, messaging apps built on top of mobile-based mesh networks have emerged as important communication tools for citizens and activists. While different flavors of these apps exist, those featuring microblogging functionalities are attractive for swiftly informing and mobilizing individuals. However, most apps fail to simultaneously uphold user anonymity while providing safe ways for users to build trust in others and the messages flowing through the mesh. They introduce Nika, a blackout-resistant app with two novel features: remote trust establishment and anonymous message endorsing. Nika also leverages a set of identity revocation primitives for the fine-grained management of trust relationships and to provide enhanced anonymity. Their evaluation of Nika through comprehensive micro-benchmarks and simulations showcases its practicality and resilience in shutdown scenarios.

[Find Out More about Digital Overground](#)

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