

CSAW21_Logo_WHITE.png



global conference agenda

The CSAW'21 Cybersecurity Games & Conference will be hosted on the Gather.town platform hosted by Virtual Chair. This is a fully virtual event for all global regions.

- Anyone who is 18 years of age or older is welcome to attend this free event.
- Registration is required.
- Attendees must agree to abide by the [Code of Conduct](#) before registering.
- Updates will be made throughout September and October; this agenda is subject to change.
- All times are listed in Eastern Standard Time [Time Zone Converter](#)
- Competition Finalists have a different registration process accessible [here](#)

[Register to Attend](#)

[Conference Platform](#)

Wednesday, 10 November 2021

all times in Eastern Standard Time

2:00 am | [CSAW'21 Platform Opens](#)

All Day | Lobby & Industry Fair Room | [Industry Fair](#) Visit sponsor & partner booths to learn about jobs, internships, programs, and services. A schedule of when representatives will be [available is here](#).

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All Day | Poster Room | Research Poster Previews

Visit research competition posters on your own schedule.

3:00 - 5:30 am | Room A | Europe Applied Research Competition Presentations & Judge Q&A

Presentations from the finalist authors and judge Q&A. Open to all CSAW attendees. Access note: once you enter Room A, take a seat, and click "x" to join the Zoom Webinar session as an attendee.

9:00 am - 12:00 pm | Off Platform | Semifinal Policy Competition Presentations

Closed presentations from the 10 semifinalist teams and judge Q&A. Finalists will be announced by 8:00 pm.

10:00 am - 11:00 am | Room A | Hack3D Challenge Check-in

Finalist teams can ask questions to the organizers. Closed event, open only to finalists and organizers.

11:30 am | Auditorium | Welcome Address

Opening remarks from the global conference director, [Professor Ramesh Karri](#), along with greetings from the global CSAW faculty directors.

12:00 - 12:45 pm | Auditorium | Opening Keynote

[Dr. Martin Otto](#), Head of Cybersecurity Research Group, Siemens Technology

1:15 - 1:45 pm | Auditorium | IC Layout Security

[Johann Knechtel](#), Research Scientist with the Design for Excellence Lab, NYU Abu Dhabi

Securing modern electronics is an important but tough challenge that requires efforts all the way from

software applications down to the hardware. For the design, manufacturing, and deployment of integrated circuits (ICs), there are numerous companies and partners involved within complex and world-wide supply chains; ICs run through many hands, and some of those may be acting with malicious intent. IC layout security is the idea of proactively hardening the IC design by security engineers, such that adversarial activities later on become hindered. This talk will provide an introduction on the topic, with background on hardware security and related challenges. We will outline some aspects to be handled for IC layout security and provide pointers for those interested in becoming involved in this timely topic.

2:00 pm - 3:15 pm | Auditorium | Security Challenges in 5G Wireless and Beyond

Panel Moderators:

[Siddharth Garg](#), Institute Associate Professor of ECE, NYU Tandon

[Sundeep Rangan](#), Professor of ECE and Associate Director, NYU Wireless, NYU Tandon

Cellular wireless systems have become critical in every aspect of our lives. The next generation of networks (NextG, meaning 5G and beyond) are expected to enable a plethora of new services from connecting billions of embedded systems, enabling new massive data rate applications, and providing real-time cloud, data and AI connectivity everywhere. To deliver these services, NextG networks are introducing powerful technologies including transmissions in the millimeter wave and THz frequencies; new spectrum sharing models; distributed core and radio access networks; mobile edge computing; network function virtualization; integration of pervasive sensing; and data collection for AI, to name a few. These technologies offer the potential for significantly enhanced capabilities, but they also expose the network to significant security risks including new opportunities for massive scale denial of service (DoS) attacks, man-in-the-middle (MitM) attacks, hardware and software Trojans, resource mis-usage, data breaches, and attacks launched from within the network or edge cloud itself.

To address these pressing security issues, this panel brings experts from industry, academia and government to discuss the security of our vital future communications infrastructure. What are the threats in NextG systems? How do we detect and adapt to attacks? How do we isolate diverse services while maintaining efficient resource usage? How do we exploit data while maintaining privacy? More generally, how do we build NextG networks that are both secure and deliver the incredible potential of connectivity. The event will be jointly hosted by NYU WIRELESS and the NYU Center for Cyber Security.

3:30 pm | Auditorium | An Empirical Cybersecurity Evaluation of GitHub Copilot's Code Contributions

[Dr. Hammond Pearce](#), Post-doctoral Research Associate, NYU Center for Cybersecurity

There is burgeoning interest in designing AI-based systems to assist humans in designing computing systems, including tools that automatically generate computer code. The most notable of these comes in the form of the first self-described 'AI pair programmer', GitHub Copilot, which is a language model trained over open-source GitHub code.

However, code often contains bugs - and so, given the vast quantity of unvetted code that Copilot has

processed, it is certain that the language model will have learned from exploitable, buggy code. This raises concerns on the security of Copilot's code contributions.

In this work, we systematically investigate the prevalence and conditions that can cause GitHub Copilot to recommend insecure code. To perform this analysis we prompt Copilot to generate code in scenarios relevant to high-risk CWEs (e.g. those from MITRE's "Top 25" list).

We explore Copilot's performance on three distinct code generation axes - examining how it performs given diversity of weaknesses, diversity of prompts, and diversity of domains. In total, we produce 89 different scenarios for Copilot to complete, producing 1,689 programs. Of these, we found approximately 40% to be vulnerable.

5:00 pm | Auditorium | Cyber Journalism Award honoring Dina Temple-Raston

Please join us in honoring the winner of this year's Cyber Journalism Award -- Dina Temple-Raston -- with a discussion of her article, [A 'Worst Nightmare' Cyberattack: The Untold Story Of The SolarWinds Hack](#) (NPR, April 2021)

6:00 - 7:00 pm | Collaboration Space | Competition Meet Ups

Opportunity for competition finalists to meet and chat with the competition organizers.

Confirmed:

Logic Locking Conquest: come say hello to the competition leads, Jitendra and Abdul

Applied Research Competition: come say hello to the US-Canada competition co-chairs, Rasika, Aditya & Govind

Embedded Security Challenge: come say hello to the University of Delaware competition leads

**Thursday, 11 November
2021**

all times in Eastern Standard Time

All Day | Lobby & Industry Fair Room | Industry Fair Visit sponsor & partner booths to learn about jobs, internships, programs, and services. A schedule of when representatives will be [available is here](#).

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All Day | Poster Room 1 | Research Poster Previews

Visit research competition posters on your own

Scheduled in advance | Lobby | Competition Run-through for Finalists

Finalists can sign-up to have a walk-through of the virtual space and practice using platform functionality in advance of final presentations. [Sign-up here](#). Meet at the Meeting Point in the Lobby.

Finalists and organizers can also do run-throughs on their own schedules.

**Friday, 12 November
2021**

all times in Eastern Standard Time

All Day | Lobby & Industry Fair Room | Industry Fair Visit sponsor & partner booths to learn about jobs, internships, programs, and services. A schedule of when representatives will be [available is here](#).

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1:00 - 2:30 am | Poster Room 1 | MENA Applied Research Competition

Presentations

Private judging sessions for the top 10 papers. Attendees are welcome to visit poster carpets and chat with authors about their research in between judging sessions.

3:00 - 3:30 am | Auditorium | MENA Applied Research Competition Award Ceremony

Ceremony to honor finalists and winners of the MENA Applied Research Competition

3:00 - 5:00 am | Room A | Europe Embedded Security Challenge Presentations

Presentations from the finalist teams with audience Q&A. Open to all CSAW attendees. Access note: once you enter Room A, take a seat, and click "x" to join the Zoom Webinar session as an attendee.

4:30 - 6:20 am | Room B | India Embedded Security Challenge Presentations

Presentations from the finalist teams with audience Q&A. Open to all CSAW attendees. Access note: once you enter Room B, take a seat, and click "x" to join the Zoom Webinar session as an attendee.

5:15 - 7:00 am | Poster Room 2 | Europe Embedded Security Challenge Judge Q&A

Judge Q&A with finalist teams. Attendees are welcome to visit poster carpets and chat with teams about their research in between judging sessions.

6:30 - 7:20 am | Poster Room 2 | India Embedded Security Challenge Judge Q&A

Judge Q&A with finalist teams. Attendees are welcome to visit poster carpets and chat with teams about their research in between judging sessions.

7:30 - 9:00 am | Room B | India Embedded Security Challenge Live Challenge

Teams should meet with organizers for an update, and then the challenge can be solved off-line. This is a closed event.

8:00 am - 4:00 pm | Off Platform | Mexico Cyber Security Challenge for High School

Forensics competition for high school students in Mexico, organized by Universidad Iberoamericana Mexico City.

8:00 - 9:30 am | Room A | Europe Embedded Security Challenge Live Challenge

Teams should meet with organizers for an update, and then the challenge can be solved off-line. This

is a closed event.

9:30 - 11:30 am | Room C | US & MENA Embedded Security Challenge Presentations

Presentations from the finalist teams. Open to all CSAW attendees.

10:00 - 11:05 am | Room D | Global Logic Locking Conquest Presentations

Public presentations from the 6 finalist teams. Open to all CSAW attendees. Access note: once you enter Room D, take a seat, and click "x" to join the Zoom Webinar session as an attendee.

10:00 am - 12:00 pm | Room A | Global Hack 3D Presentations & Judge Q&A

Public presentations from the 6 finalist teams and judge Q&A. Open to all CSAW attendees. Open to all CSAW attendees. Access note: once you enter Room A, take a seat, and click "x" to join the Zoom Webinar session as an attendee.

11:30 am | Auditorium | Europe ARC & ESC Award Ceremony

Ceremony to honor finalists and winners of the Europe Applied Research Competition & the Embedded Security Challenge.

11:15 am - 12:05 pm | Poster Room 1 | Global Logic Locking Conquest Judge Q&A

Judge Q&A with finalist teams. Attendees are welcome to visit poster carpets and chat with teams about their research in between judging sessions.

11:30 am - 1:00 pm | Poster Room 2 | US & MENA Embedded Security Challenge Judge Q&A

Judge Q&A with finalist teams. Attendees are welcome to visit poster carpets and chat with teams about their research in between judging sessions.

1:00 - 3:30 pm | Poster Room 1 | US-Canada Applied Research Competition Poster Presentations & Judge Q&A

Private judging sessions for the top 10 papers. Attendees are welcome to visit poster carpets and chat with authors about their research in between judging sessions.

1:00 pm - 3:00 pm | Room C | US & MENA Embedded Security Challenge Live Challenge

Teams should meet with organizers for an update, and then the challenge can be solved off-line. This is a closed event.

1:00 - 3:45 pm | Room A | Final Policy Competition Presentations

Public presentations from the 5 finalist teams and judge Q&A. Open to all CSAW attendees. Access note: once you enter Room A, take a seat, and click "x" to join the Zoom Webinar session as an attendee.

2:00 pm | Off Platform | MENA & Europe Capture the Flag Finals Start | Public Scoreboard

36-hour Capture the Flag Finals for finalist teams from MENA and Europe regions.

5:30 - 7:00 pm | Auditorium | US-Canada & Global Competition Award Ceremony

Ceremony to honor finalists and winners of US-Canada Applied Research Competition, Policy Competition, Hack3D, Logic Locking, and US-Canada-MENA and India Embedded Security Challenge.

9:00 pm | Off Platform | India, Mexico, & US-Canada Capture The Flag Finals Start | Public Scoreboard

36-hour Capture the Flag Finals for finalist teams from India, Mexico, and US-Canada regions.

**Saturday, 13 November
2021**

All Day | Off Platform | Capture the Flag Finals continues | Public Scoreboard

Capture the Flag Finals for all finalist teams across all global regions.

**Sunday, 14 November
2021**

all times in Eastern Standard Time

2:00 am | Off Platform | MENA & Europe CTF Finals Ends | Public Scoreboard

Capture the Flag ends for finalist teams in MENA and Europe regions.

9:00 am | Off Platform | India, Mexico & US-Canada CTF Finals Ends | Public Scoreboard

Capture the Flag ends for finalist teams in India, Mexico & US-Canada regions.

9:30 am | Auditorium | CTF Award Ceremony

Ceremony to honor finalists and winners of Capture the Flag across all regions.

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