Criminal Investigations and Network Analysis
A DHS CENTER OF EXCELLENCE

GEORGE MASON UNIVERSITY

November 2022 www.cina.gmu.edu

THOUGHTS FROM THE DIRECTOR



Jim Jones

The end of the calendar year is a natural time to reflect on the year just passed. I know we're not quite there yet, but clocks are back on standard time. (I'm in my office and it's dark outside!) The weather has turned colder in DC, holiday breaks are starting, and January will be here before we know it - and before the next CINA newsletter goes out.

So, what does CINA's 2022 look like in the rear view mirror? We launched multiple new projects, continued several others, and worked on transitioning still more. The projects are advancing the state of the art and science with respect to CINA and the Department's missions, and we are proud of our contributions.

We had a very productive summer with our interns and our MSI partners, and we recently had our annual meeting where we were fortunate to see and talk with many of you.

More recently, we co-sponsored an anti-counterfeiting hackathon sponsored by Amazon and organized by Mason's own TraCCC Center (see details below). My primary takeaway from the hackathon? Pose hard problems, and they will come. I know the world is full of smart people, but we offered worthwhile prizes and some good food, and we got a depth and breadth of solutions beyond my expectations.

So I leave you with a message of reality and conviction: the world will continue to toss hard problems at us, and we at CINA will continue to tap the dedicated, smart, and talented occupants of that world to solve them.

NEWS

Now Hiring: Join our Team



The CINA team is expanding offering four new opportunities while also searching to build upon our Workforce Development and Training efforts. See below for details and links to apply.

CINA Project Manager

Responsibilities for this role (two positions) include supporting the CINA Deputy Director in managing progress for projects in the CINA research portfolio. The Project Manager directly engages with project teams to monitor project lifecycle, requirements, expenditures, and milestones; summarizes progress in periodic reports for center leadership and the funding agency; supports coordination efforts among research teams and stakeholders, and provides broad coordination support across other Center operations that relate to research.

Learn More and Apply

Transition and Impact Manager

The CINA Transition and Impact Manager is responsible for supporting the CINA Deputy Director in transitioning CINA research projects to operational integration at DHS, as well as licensing, commercialization, publication, and other dissemination of research project output.

Apply Now

Education and Workforce Development Lead

The CINA Education and Workforce Development Lead will grow and manage the DHS education and workforce development activities of the center. These activities will help educate and train the current and future homeland security workforce in science and engineering professions to enhance the capabilities and effectiveness of the homeland security community.

Apply Today

Recap: "Bring Down Counterfeiting 2022" Policy Hackathon



CINA Director, Jim Jones awards the ATAPP team their $10,000 prize to support their follow on research

The CINA Center partnered with George Mason University's Terrorism, Transnational Crime and Corruption Center (TraCCC), and Amazon to present the 2022 Bring Down Counterfeiting Public Policy Hackathon, held November 5 at the Homeland Security Investigations Innovation Lab in Arlington.

The event challenged teams from U.S. and international academic institutions, companies, and other affiliations

to develop innovative ideas to improve public-private collaborations against the industry-wide global challenge of counterfeiting.

CINA sponsored a special $10,000 prize to fund follow-up research by A-Capp Team #1, which proposed producing a central database to help law enforcement and private businesses track individuals and factories that manufacture or sell counterfeit items. CINA Director Jim Jones, who participated in the event stated "CINA is proud to support the extension of the project proposed by the A-CAPP team at Michigan State University. The team proposed building a database of counterfeiting cases and related information, which we believe we could enhance future analytic efforts to better understand, disrupt, and dismantle the criminal networks behind these counterfeiting activities."

Second place and $15,000 went to Team Nimbus, which included three college freshmen (two from George Mason and one from the University of Virginia) who proposed developing a Chrome extension to prevent the consumption of counterfeit medicine by focusing on counterfeit pharmacies.

To learn more about possible hackathon event collaborations and/or research project ideation and problem solving partnership opportunities, email cina@gmu.edu.

Learn more about the Hackathon

CINA Annual Meeting 2022

CINA welcomed more than 70 attendees to the George Mason University Fairfax campus on October 12, for an in-person Annual Meeting.



CINA Science Committee members: Joseph DiZinno, Allison Redlich, and Louise Shelley

Opening keynote, James Collins, Director of the Strategic Division of the United States Council on Transnational Organized Crime (USCTOC) discussed the importance of combating transnational organized crime and terrorism, and shared new trends, emerging technologies and techniques to fight against crime and global threats.

The event included a CINA Project Showcase that allowed attendees to meet with CINA researchers representing twenty-six different CINA-sponsored projects in the realms of criminal network analysis and predictive modeling, analysis of dynamic patterns of criminal activity, traditional and digital forensics, and improving criminal investigative processes.

Explore CINA-sponsored research projects

CINA 2022 Annual RFP

CINA's 2022 Annual RFP will open in mid-December and will invite proposals that address main challenges represented by the four research themes of the CINA Center: Criminal Network Analysis, Dynamic Patterns of Criminal Activity, Forensics, and Criminal Investigative Processes.



New Research Findings: Crime Hot Spots and Place-Based Improvements



A CINA research team led by Marie Tillyer (UTSA) has published two new articles based on results from the first phase of a project examining patterns in crime hotspots in major U.S. cities.

The team's recent work discusses place-based improvements for public safety and findings on the effects of private investments and public regulations on yearly changes in crime, and examines spatiotemporal crime patterns, including the degree of crime concentration, stability, and change at micro-places across six large cities.

The project team is continuing their research in a second phase exploring additional factors that may further inform how to leverage small scale community investments for greater returns in crime reduction.

Learn more about their research

Project Spotlight: Digital Holographic Acquisition, Storage, Retrieval and Analysis of Three-Dimensional Fingermarks

Lead PI Partha Banerjee from the University of Dayton, and co-PI Akhlesh Lakhtakia of Penn State, and developed a project that works with 3-dimensional digital holography to provide fingermark images with much higher resolution than traditional techniques, build a portable database with information on 3D recognition of fingermarks, and develop a user-friendly interface for fingermark reading from holograms. These tools and techniques can be used to support the detection, analysis, monitoring, and dismantling of criminal activities.

Read more about the project

DHS Interest and Input Survey



CINA invites interest and input from those who work with DHS and other federal, state, and local government agencies and industry/contractors affiliated with the Homeland Security Enterprise. If you are interested in learning more about CINA projects, DHS student internships, or would like to provide input to CINA's RFP, please submit your feedback by following the link below.

Give us your input

Police Are Turning to an Old Tactic to Fight the Surge in Violence But It Needs a Rethink



CINA Science Committee member David Weisburd was mentioned in a recent Time magazine article discussing hotspot policing in high-crime areas. Weisburd was noted saying "There have been a large number of studies suggesting hotspot policing is effective. That being said we all know that the reaction of the community is dependent on what the police are doing and how they're implementing this method." Weisburd co-authored a study, published in the Fall of 2022 that found that the police should be treating people in hotspot areas with respect.

Read the full article



Wednesday, December 7: "Working with Law Enforcement and Brands to Hold Bad Actors Accountable and Protect Consumers" with Joe Wheatley

Join us on Wednesday, December 7 for the upcoming virtual CINA Distinguished Speaker Series event featuring Joe Wheatley, Senior Corporate Counsel of the Amazon Counterfeit Crimes Unit.

The presentation will highlight "Working with Law Enforcement and Brands to Hold Bad Actors Accountable and Protect Consumers."



Register Now

Event Recap: Arun Ross - "Privacy in the Era of Automated Face Recognition"



In case you missed it, watch **Arun Ross**, Professor in the Department of Computer Science and Engineering at Michigan State University and the Director of the i-PRoBe Lab discuss privacy implications of automated face recognition (AFR) technology. Ross describes the auxiliary information that can be extracted from face images and the ability to link disparate face images using AFR, thereby divulging the identity of individuals in applications where anonymity is expected.

Watch the presentation

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