





Dear friends:

The University of Pittsburgh Institute for Cyber Law, Policy, and Security launched in 2017 as an experiment: Can existing approaches to cyber at Pitt and beyond be transformed to drive better outcomes?

2019 allowed us to answer that question with a most emphatic yes.

From driving improved election security across Pennsylvania to launching new research around cyberbullying prevention to providing cybersecurity education to hundreds of high school students, Pitt Cyber's research, education, and public engagement integrates cutting-edge research and teaching across the full breadth of the University of Pittsburgh to promote the development and use of technology safely, securely, and equitably.

We hope that you will be as excited as we are about the success we continue to have in innovating and collaborating across disciplines here within Pitt, with policymakers, and with industry. We continue to work in the critical space at the intersection of technology, law, and policy and know that this type of transdisciplinary work will be even more vital in the years to come.

Pitt Cyber will continue to take on work wherever we can be most impactful. We hope you will take a moment to read about all we have accomplished in our third year. We look forward to your continued ideas, insight, and partnership.

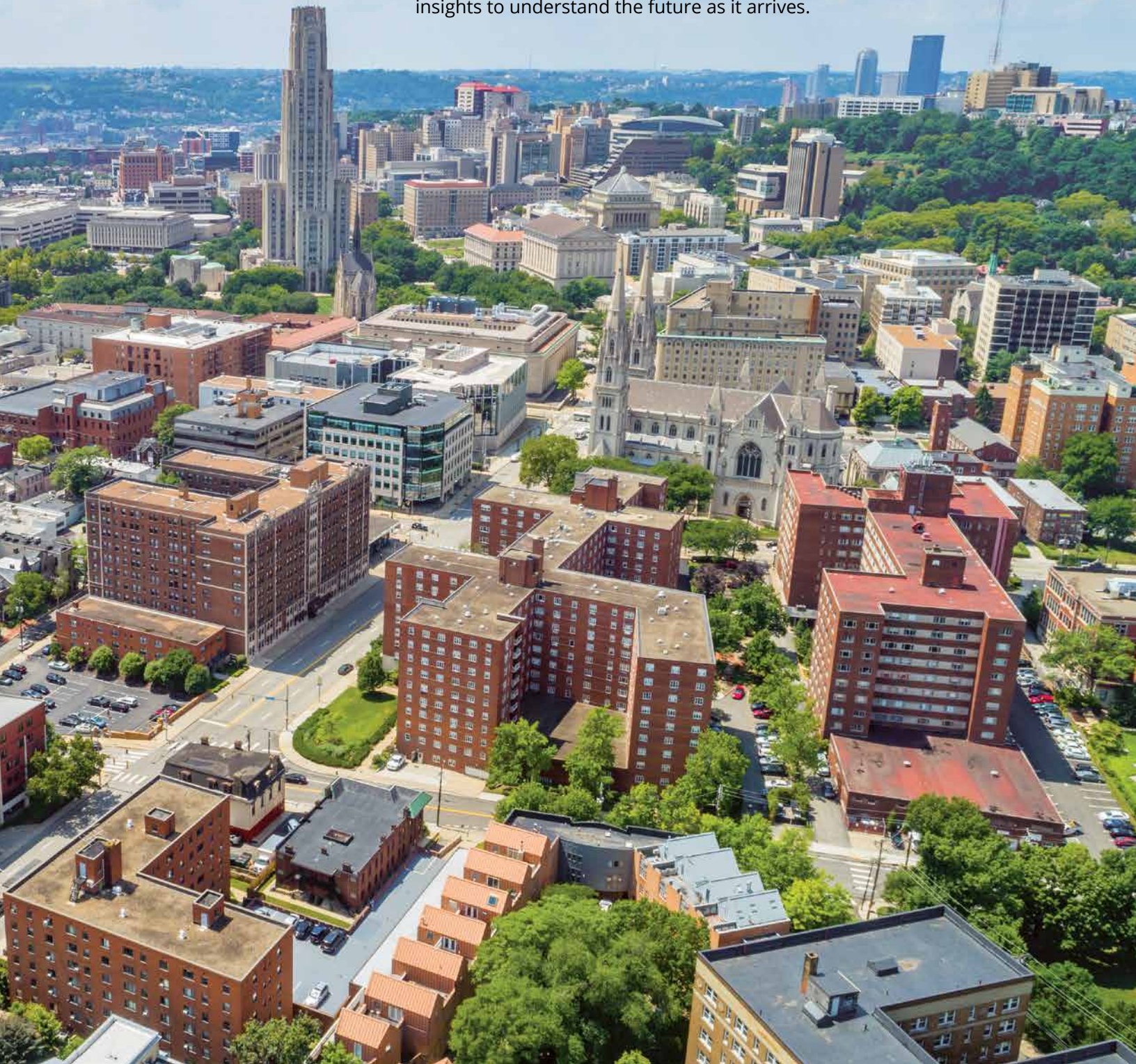
Sincerely,

A handwritten signature in black ink, appearing to read "D. Hickton". The signature is fluid and cursive, with a large loop at the end.

David Hickton
Founding Director

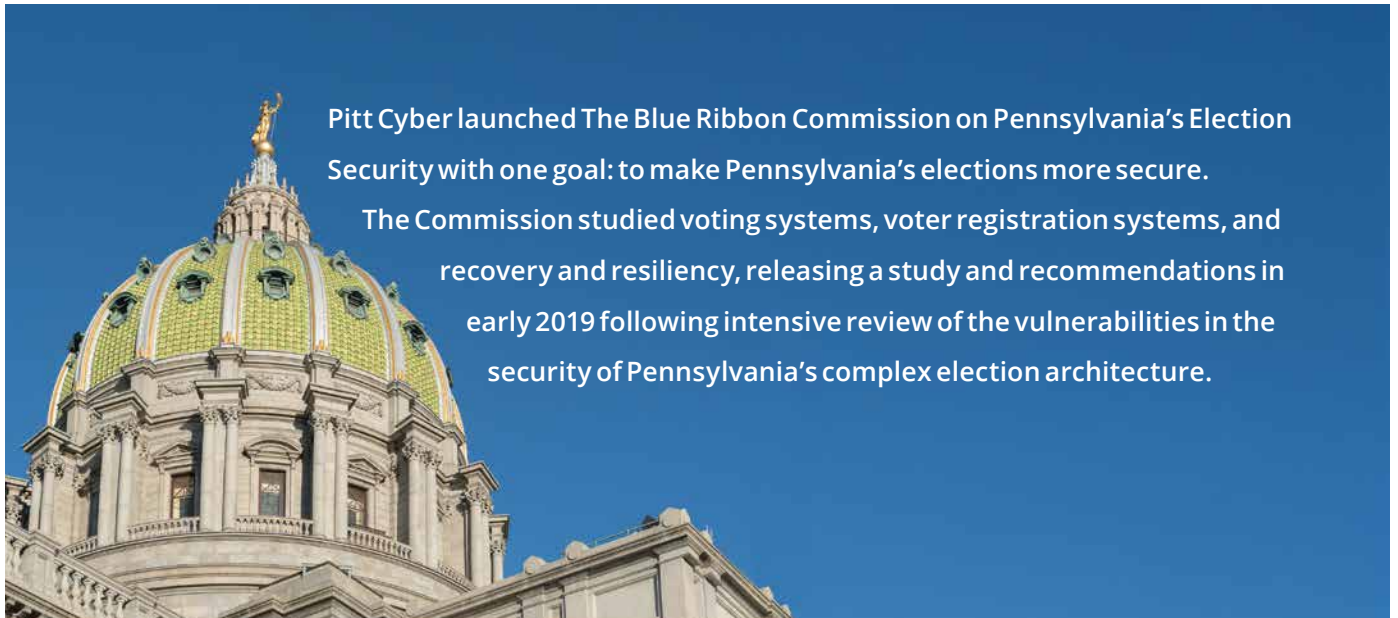
Mission

Pitt Cyber provides a unique transdisciplinary environment for tackling cyber challenges. We bring the breadth of one of the world's leading public research universities to bear on the critical questions of networks, data, and algorithms, with a focus on the ever-changing gaps among law, policy, and technology. Our collective of legal, policy, and technical researchers engages with policymakers and industry to create both actionable proposals to address current demands and fundamental insights to understand the future as it arrives.



Programs

The Blue Ribbon Commission on Pennsylvania's Election Security



Pitt Cyber launched The Blue Ribbon Commission on Pennsylvania's Election Security with one goal: to make Pennsylvania's elections more secure.

The Commission studied voting systems, voter registration systems, and recovery and resiliency, releasing a study and recommendations in early 2019 following intensive review of the vulnerabilities in the security of Pennsylvania's complex election architecture.

Key recommendations of the Commission include:

- Replace vulnerable voting machines with systems using voter-marked paper ballots paired with risk-limiting audits and
- Increase federal and state funding for election security.

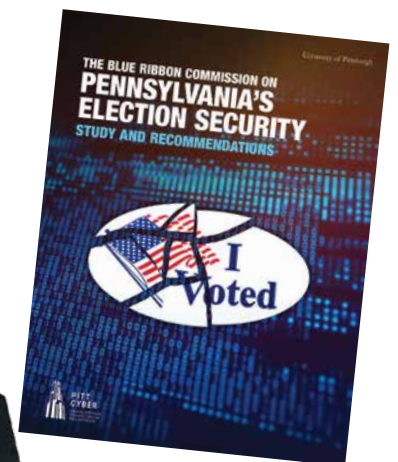
The independent, bipartisan commission has been heartened to see many of its recommendations taken up throughout the Commonwealth, including voting machine replacement, piloting of risk-limiting audits, and increased state funding for voting system replacement.

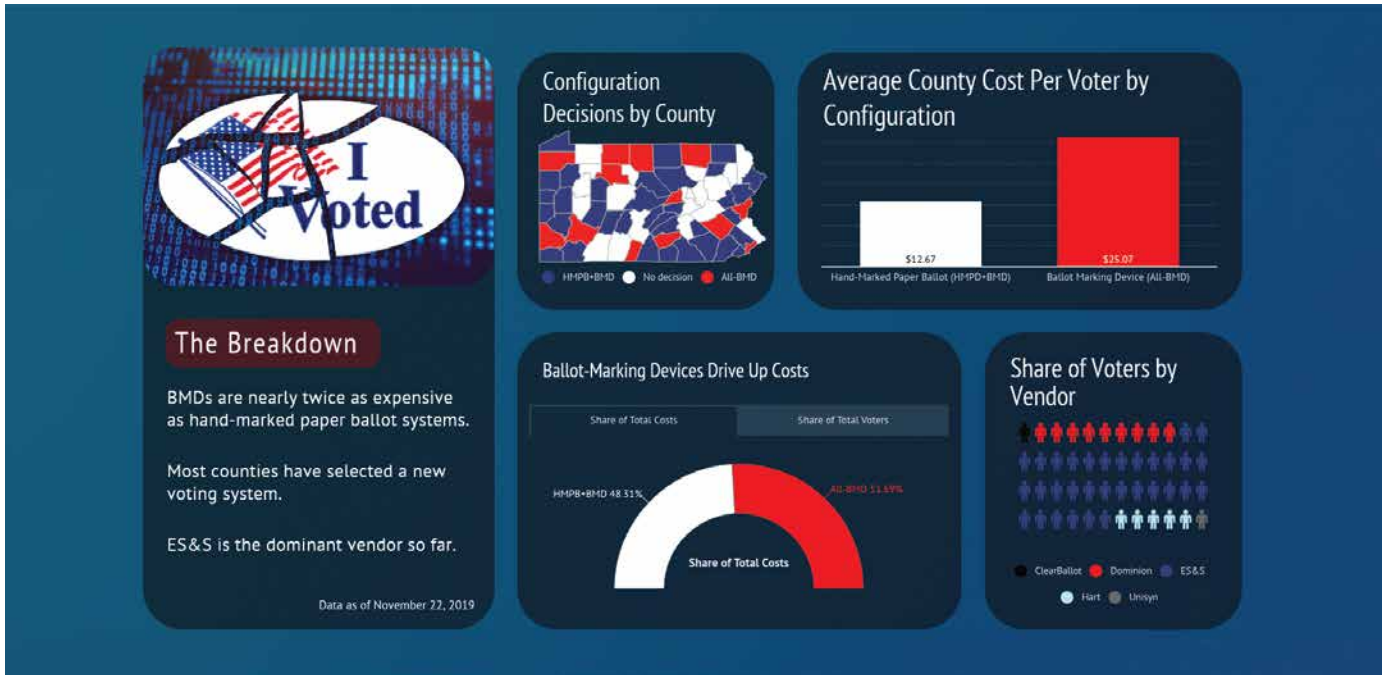
Pitt Cyber is grateful for the support of The Heinz Endowments and the Charles H. Spang Fund of the Pittsburgh Foundation, as well as collaboration with Verified Voting on this work.

The Blue Ribbon Commission on Pennsylvania's Election Security's work and its researchers have been cited extensively in national and local media and endorsed by editorial boards across Pennsylvania and beyond. The Commission also has been recognized by the Allegheny County Council, which presented the Commission with a proclamation honoring its work. Pitt Cyber staff members testified before the Pennsylvania Senate State Government Committee and appeared before the Allegheny County Board of Elections.

Analyzing Pennsylvania's Voting Systems Selections

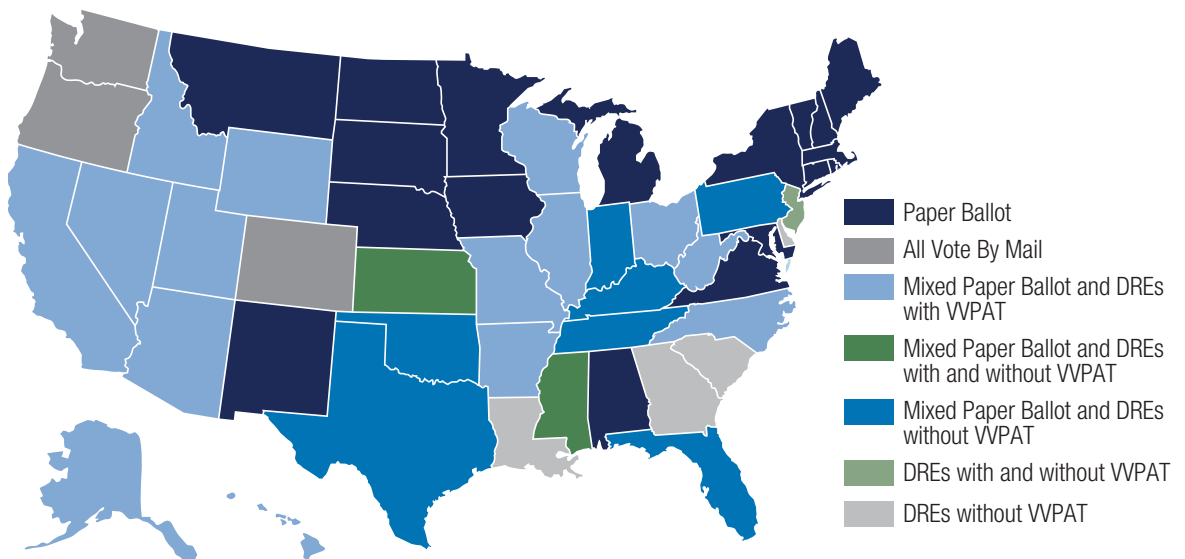
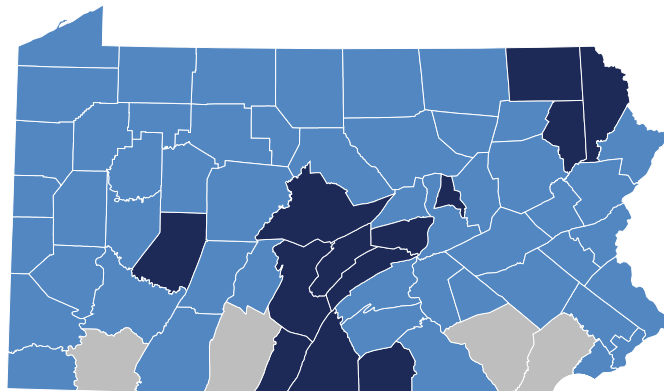
Pitt Cyber collaborated with Citizens for Better Elections to conduct analysis of Pennsylvania counties' selections of paper-based voting systems, finding that counties that purchase exclusively ballot-marking devices are paying substantially more on a per voter basis than those counties that purchase the more secure option of optical scan machines that tabulate hand-marked paper ballots supplemented by ballot-marking devices for voters who are unable to handmark.





Identifying Federal Funding Needs for State Election Security

Pitt Cyber also collaborated with the Brennan Center for Justice, R Street Institute, and Alliance for Securing Democracy to analyze federal funding needs for state election security, reviewing allocation of 2018 federal funds and identifying additional unfunded security needs for selected states, including Pennsylvania.



Members of The Blue Ribbon Commission on Pennsylvania's Election Security



Commission Co-chairs

David Hickton, founding director, University of Pittsburgh Institute for Cyber Law, Policy, and Security; and former U.S. attorney for the Western District of Pennsylvania

Paul McNulty, president, Grove City College, former U.S. deputy attorney general, and former U.S. attorney for the Eastern District of Virginia

Commission Members

Jim Brown, former chief of staff to U.S. Senator Robert P. Casey Jr. and former chief of staff to Pennsylvania Governor Robert P. Casey

Esther L. Bush, president and CEO, Urban League of Greater Pittsburgh

Mary Ellen Callahan, former chief privacy officer, U.S. Department of Homeland Security

Susan Carty, president, League of Women Voters of Pennsylvania

Nelson A. Diaz, retired judge, Philadelphia Court of Common Pleas

Jane Earll, attorney and former Pennsylvania State Senator

Douglas E. Hill, executive director, County Commissioners Association of Pennsylvania

Mark A. Holman, partner, Ridge Policy Group, former deputy assistant to the president for homeland security, and former chief of staff to Pennsylvania Governor Tom Ridge

Ken Lawrence, vice chair, Montgomery County Board of Commissioners

Mark A. Nordenberg, chair of the Institute of Politics, University of Pittsburgh; Chancellor Emeritus of the University; and Distinguished Service Professor of Law

Grant Oliphant, president, The Heinz Endowments

Pedro A. Ramos, president and CEO, The Philadelphia Foundation

James C. Roddey, former chief executive, Allegheny County

Marian K. Schneider, president, Verified Voting, and former Pennsylvania deputy secretary of state for elections and administration

Bobbie Stempfley, director, CERT Division, Software Engineering Institute, Carnegie Mellon University

David Thornburgh, president and CEO, Committee of Seventy

Sharon Werner, former chief of staff to U.S. attorneys general Eric H. Holder Jr. and Loretta E. Lynch

Dennis Yablonsky, former CEO, Allegheny Conference on Community Development and former Pennsylvania secretary of community and economic development

Senior Advisors

Charlie Dent, former U.S. Congressman, 15th District of Pennsylvania

Paul H. O'Neill, 72nd secretary of the U.S. Treasury

Dick Thornburgh, former governor of Pennsylvania, former attorney general of the United States, and former under-secretary-general of the United Nations

Affiliations are provided for identification purposes. Commission Members serve in their personal capacities.

Staff

Christopher Deluzio, policy director, University of Pittsburgh Institute for Cyber Law, Policy, and Security

Beth Schwanke, executive director, University of Pittsburgh Institute for Cyber Law, Policy, and Security



HUMAN TRAFFICKING:

**A FORM OF MODERN SLAVERY AND
A MULTIBILLION-DOLLAR
CRIMINAL INDUSTRY THAT
DENIES FREEDOM TO 20 MILLION
PEOPLE AROUND THE WORLD—
INCLUDING RIGHT HERE IN PITTSBURGH**

Hacking4Humanity

Pitt Cyber, the University of Pittsburgh School of Computing and Information, and the University of Pittsburgh Graduate School of Public and International Affairs' (GSPIA) Ford Institute for Human Security hosted a new kind of hackathon—an intentionally transdisciplinary hackathon.

In 2019, we called on Pitt and other area students to create technologies to help prevent human trafficking. Inspired by challenge scenarios developed by GSPIA students, participants created technologies ranging from platforms for smart contracts to prevent labor trafficking to interactive games to educate teens about potential trafficking risks.



Pitt Cyber is grateful for the expertise of its partners, Allegheny County Department of Human Services and Pittsburgh Action Against Rape, as well as for our generous sponsors.

Gold Sponsors

PNC
Deloitte

Silver Sponsors

IBM

Bronze Sponsors

SDLC Partners	SIG Susquehanna
CyLumena	PPG
BNY Mellon	Google
NetApp	
Dick's Sporting Goods	



Hacking4Humanity 2019 Winners

Above: First place: **Lokidor: a multi-system device to help prevent trafficking of children and raise awareness:** Gaoxiang Chen, Pitt, information science; Shenghui Yang, Pitt, information science; Deng Pan, Pitt, information science; and Yaxin Zhai, Pitt, accounting

Right: Second place **Clean Wages: Blockchain to Block Chains:** Joshua Ackerman, CMU, mathematics & computer science; Rui Yuan Shum, CMU, computer science; Brandon Pek, CMU, computer science; and Michelle Cong, CMU, economics and business administration



Air Force Association CyberPatriot Camp

Pitt Cyber hosted its third annual Air Force Association Cyber Camp this past summer for 230 high school students, in partnership with Robert Morris University.

The camp is a pillar of Pitt Cyber's efforts to expand an inclusive pipeline for future technologists and is free for all students. The camp inspires students to take an interest in cybersecurity and other STEM fields. The interactive curriculum is focused on cyber ethics, systems security, and network security.

We are grateful to our sponsor, Microsoft, for its generous support.



“The camp is very good for this industry ... it gives those students exposure to an enterprise network environment of such size and such scale that they wouldn't really see anywhere else.”

—Jay Graham, enterprise architect, University of Pittsburgh, and CyberCamp instructor



**“I never knew what
I was capable of
until I went to the
CyberCamp.”**

—ninth grade student

Research and Publications

Pitt Cyber Accelerator Grants (PCAG)

Pitt Cyber launched its PCAG program in 2018 to provide initial funding for novel and innovative projects that advance Pitt Cyber’s mission: to bring the breadth of one of the world’s leading public research universities to bear on the critical questions of networks, data, and algorithms, with a focus on the ever-changing gaps among law, policy, and technology.

PCAG funding is used to advance projects that establish and extend key intellectual infrastructures, such as research and teaching in methods with broad application and utility across disciplines, and projects that bring together researchers, teachers, and/or students across fields of interest.



2019 PCAG Recipients

Social Weather Service: A Cyber-enabled Forecasting of Social Unrest and Conflicts

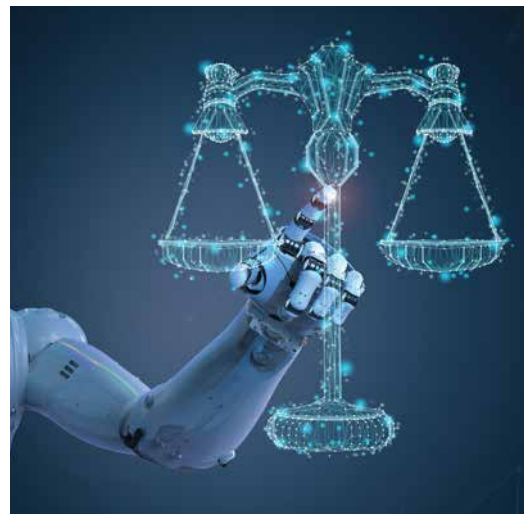
Vladimir Zadoronzy, professor, School of Computing and Information;

Panos

Chrysanthis, professor of computer science, School of Computing and Information; **Michael Colaresi**, William S. Dietrich II Chair of Political Science, Kenneth P. Dietrich School of Arts and Sciences; and **Patrick Manning**, Andrew Mellon Professor of World History emeritus, Kenneth P. Dietrich School of Arts and Sciences

Artificial Intelligence and the Law

Kevin Ashley, professor, School of Law, and **Jaromir Savelka**, PhD candidate, Intelligent Systems Program, School of Computing and Information



Towards Resilient Smart Critical Infrastructure

David Tipper, professor, School of Computing and Information; and Alexis Kwasinski, associate professor, Swanson School of Engineering



Fighting Cyberbullying: A Transformative and Educational Game for Promoting Empathic Understanding

Rosta Farzan, associate professor; Dmitriy Babichenko, professor of practice; and Zak Risha, School of Computing and Information

Spotlight on Ongoing Research

Cyberbullying Prevention

Thanks to the support of AT&T, Pitt Cyber Affiliate Scholars **Lisa Nelson** from the Graduate School of Public and International Affairs, **Rosta Farzan** from the School of Computing and Information, **Mary Ohmer** from the School of Social Work, and **Ana Radovic** from the School of Medicine are developing a program focused on cyberbullying prevention and intervention in early adolescence.

Affiliate Scholar Research and Publications

Pitt Cyber's staff and affiliate scholars continue to publish widely. Selected publications include:

"A Framework for Election Vendor Oversight"

November 2019 | Lawrence Norden, Brennan Center for Justice; **Christopher Deluzio**, Pitt Cyber; Gowri Ramachandran, Brennan Center for Justice

"Pennsylvania Counties' New Voting Systems: An Analysis"

August 2019 | **Christopher Deluzio**, Pitt Cyber; and **Kevin Skoglund**, Citizens for Better Elections

"Defending Elections: Federal Funding Needs for State Election Security"

July 2019 | **Christopher Deluzio**, Pitt Cyber; Liz Howard, Brennan Center for Justice; Paul Rosenzweig, RStreet Institute; David Salvo, Alliance for Securing Democracy; Rachael Dean Wilson, Alliance for Securing Democracy



"The Blue Ribbon Commission on Pennsylvania's Election Security Study and Recommendations"

January 2019 | **The Blue Ribbon Commission on Pennsylvania's Election Security**

"Role of Moderators on Engagement of Adolescents With Depression or Anxiety in a Social Media Intervention: Content Analysis of Web-Based Interactions"

September 2019 | Carolyn Windler, Maeve Clair, Cassandra Long, Leah Boyle, and **Ana Radovic** - JMIR Publications

"The Twilight of Automation"

February 2019 | **Mario Khreiche** - Fast Capitalism

"F*cking With the Magic"

January 2019 | **Michael J. Madison** - Technology LawJotwell

"The Cinderella Complex: Word Embeddings Reveal Gender Stereotypes in Movies and Books"

October 2019 | Huimin Xu, Zhang Zhang, **Lingfei Wu**, Cheng-Jun Wang - arXiv Cornell Library



Education

Cyber-related course offerings throughout the University of Pittsburgh continued to expand in 2019. Courses offered by affiliate scholars included:

Affiliate Scholar **Lisa Nelson** taught **Ethics and Policy in Cyber Space** at the Graduate School of Public and International Affairs, teaching students to consider the impact of emerging technologies within existing constitutional, statutory, and international guidelines and exploring a range of policy solutions for managing the use of personal information in our public and private sectors.

Affiliate Scholar **James Joshi** taught **Information Security and Privacy**. The course covered fundamental issues and first principles of security and information

assurance. It addressed security policies, models, and mechanisms related to confidentiality, integrity, authentication, identification, and availability issues related to information and information systems. Students studied basics of cryptography such as key management and digital signatures; and network security such as PKI, IPsec, intrusion detection and prevention. The course also addressed risk management, security assurance and secure design principles; and issues such as organizational security policy, legal and ethical issues in security, standards and methodologies for security evaluation and certification.

Affiliate Scholars **Dan Cole** and **William Clark** taught **Hacking for Energy**. The course taught students how to build products and services using lean methods by solving real-world energy industry problems.

The course used the lean launchpad platform for entrepreneurship. Affiliate Scholar **Annette Vee** taught **Digital Humanity**. The course prepared students to critically examine the intersections between digital devices and human life. Covering topics such as the relationship between computers and humans, surveillance, big data, and interactivity and games, students were asked to question what it means to be human in a space of pervasive digitality.

Spotlight on the New Graduate Certificate in Cybersecurity, Law, and Policy

The University's School of Computing and Information, Graduate School of Public and International Affairs, and School of Law now offer a graduate certificate in Cybersecurity, Law, and Policy.

Events

Pitt Cyber was pleased to host a range of events with University partners across campus in 2019.



Air Force Space Command

Lieutenant General David Thompson, vice commander of Air Force Space Command, visited Pitt to discuss Air Force space missions, integrating space policy, stewardship of space, and partnerships in the space domain. The event was cohosted by Pitt Cyber; AFROTC Detachment 730; GSPIA's Matthew B. Ridgway Center; the Swanson School of Engineering; the Center for Space, High-Performance, and Resilient Computing; the School of Computing and Information; the Center for Military Medicine Research; and the World Affairs Council of Pittsburgh.

Do You Trust This Computer Screening

Award-winning director Chris Paine joined Pitt Cyber for a screening of his documentary, "Do You Trust This Computer?." Affiliate Scholars **Adam Lee, Michael Madison, and Annette Vee** joined Paine for a discussion on ethics and the impact of artificial intelligence today and in the future.

Cyberbullying: Intervention and Prevention

Pitt Cyber, AT&T, and UPMC Children's Hospital of Pittsburgh were joined by national cyberbullying expert Dr. Ellen Selkie and experts from Carnegie Mellon University and Pittsburgh Public Schools for a discussion on cyberbullying. The experts covered how to identify, prevent, and intervene in cases of cyberbullying in middle and high school aged students.

The EU Perspective on Regulating Online Platforms featuring Folkert Wilman

Cybersecurity, Geopolitics, and the Future of Technological Competition featuring Adam Segal

Industry of Anonymity: Inside the Business of Cybercrime featuring Jonathan Lusthaus

Cybersecurity Seminar Series hosted by LERSAIS and Pitt Cyber

Selected Speaking Engagements

Pitt Cyber continued its active presence at the University of Pittsburgh and well beyond campus. Here are a few selected engagements from 2019:

Washington Post Live Cybersecurity Summit: **David Hickton**, speaker
 International Cyber Risk Management Conference: **David Hickton**, keynote speaker, interviewed by BNN Bloomberg's Amber Kanwar
 NS2 Now Security and Innovation Summit: **Kiersten Todt**, speaker
 Intellectual Property Institute: **David Hickton**, keynote speaker
 League of Women Voters Pennsylvania State Convention: **Chris Deluzio**, speaker
 Pennsylvania County Election Officials Conference: **Chris Deluzio**, speaker
 Testimony before Allegheny County Board of Elections: **Chris Deluzio**
 Testimony before Allegheny County Board of Elections: **Beth Schwanke**
 Testimony before Pennsylvania Senate State Government Committee: **Chris Deluzio**



After Robert Mueller's Warning, a Broad Agreement on Election Threats but Not On What to Do about Them | USA Today
Summer Camp Aims to Net Future Cybersecurity Professionals, As Jobs Go Unfilled | 90.5 WESA
Surveying Election Security Needs | Politico Morning Cybersecurity
States Don't Have Enough Money to Secure the 2020 Election, New Report Warns | The Washington Post Cybersecurity 202
Huawei's Yearslong Rise is Littered With Accusations of Theft and Dubious Ethics | Wall Street Journal
The Growing Partnership Between Russia's Government and Cybercriminals | CBS News 60 Minutes
Robert Mueller Showed How U.S. Elections Broke in 2016. Here's How to Fix Them | TIME
No Digital Solution at Present to Curb Election Interference | BNN Bloomberg
In Some States, Sexting Could Land Teens in Jail for a Long Time | Reuters
Thousands of Identities, Personal Information Published in FBI-Related Hack | NBC News
'National Security Threat' As Chinese Hackers Are 'Allowed' to Target US Businesses | Forbes
As China Hacked, U.S. Businesses Turned A Blind Eye | NPR All Things Considered
Trump DOJ Indicts WikiLeaks Founder Assange | MSNBC The Beat with Ari Melber

Pennsylvania Dedicates Cash to Election Security, but Does it Need More Fast? | Politico

Additional coverage by:

Bloomberg, Public Source, KDKA, WTAE, WPXI, PennLive, Pennsylvania Capital Star, Tribune Democrat, The Hill, StateScoop, Think Progress, The Pitt News, Mother Jones, Go Erie, York Dispatch, Philadelphia Inquirer, Inside Cybersecurity, The Morning Call

Selected Op-eds

Guess Which Ballot Costs Less and is More Secure? Paper or Electronic? | PennLive by **Chris Deluzio** and **Kevin Skoglund**

Don't Nickel & Dime Pennsylvania's Democracy | The Pittsburgh Tribune-Review by **David Hickton**

A Call for Action: Now is the Time to Secure Pennsylvania's Elections | PennLive by **David Hickton** and **Paul McNulty**

Four Cybersecurity Priorities for Congress to Confront Active Threats | The Hill by **David Hickton** and **Kiersten Todt**

With Gratitude

Pitt Cyber is a truly University-wide effort. We are grateful for collaborations from across the University. Pitt Cyber owes a particular debt of gratitude to the Office of the Chancellor, Office of the Provost, Office of University Counsel, Pitt IT, and the School of Law. We also are grateful for the constant support of the Office of University Communications and Marketing and the Division of Philanthropic and Alumni Engagement.

Selected Media

Coverage of Pitt Cyber and affiliate scholars' work in 2019 has included:

Alleged Russian Hacker Behind \$100 Million Evil Corp Indicted | WIRED
Voting-Machine Upgrade Stirs a Partisan Clash in Pennsylvania | The Wall Street Journal
County Resists Pennsylvania's Push for New Voting Machines | Associated Press
Elections Board Appears Likely to Pick ES&S Voting Machines for Use Beginning in 2020 | Pittsburgh Post-Gazette
Study Finds Huge Difference in Cost of New Voting Machines for Pennsylvania Counties | Trib Live
Logged In | Pitt Magazine
"We Are Being Eaten Alive From Within: Why American is Losing the Battle Against White Nationalist Terrorism" | TIME

Institute Staff

David Hickton, founding director;
professor of law

Beth Schwanke, executive director

Michael Colaresi, research and
academic director; William S.
Dietrich II Chair of Political Science

Christopher Deluzio, policy director

Kiersten Todt, resident scholar

Sarah Barca, administrative director

Kate Ulreich, IT consultant, with
thanks to the generosity of Pitt IT

Breanna McVay, intern, with thanks
to the generosity of the David Berg
Center for Ethics and Leadership at
Pitt Business

Affiliate Scholars

Pitt Cyber's Affiliate Scholars are
faculty members from across the
University.

Kevin C. Abbott, adjunct professor
of law, School of Law

Kevin D. Ashley, professor of law,
School of Law

Amy Babay, assistant professor,
School of Computing and
Information

Dmitriy Babichenko, clinical
associate professor, School of
Computing and Information

Elena A. Baylis, professor of law,
School of Law

Mostafa Bedewy, assistant professor,
Swanson School of Engineering

Ronald A. Brand, Mark A. Nordenberg
University Professor and John
E. Murray Faculty Scholar, and
academic director, Center for
International Legal Education,
School of Law

Matt Burton, lecturer, School of
Computing and Information

Bruce R. Childers, associate dean for
strategic initiatives; professor
of computer science, School of
Computing and Information

William W. Clark, professor, Swanson
School of Engineering

Paul Cohen, founding dean and
professor, School of Computing and
Information

Michael Colaresi, William S.
Dietrich II Chair of Political Science,
Department of Political Science

Dan Cole, associate professor and
director of Stephen R. Tritch Nuclear
Engineering Program, Swanson
School of Engineering

Mary Crossley, professor of law,
School of Law

Stephanie Dangel, executive director,
Innovation Practice Institute

Lindsey French, visiting assistant
professor, Kenneth P. Dietrich
School of Arts and Sciences

Wei Gao, associate professor,
Swanson School of Engineering

Alan D. George, electrical and
chemical engineering department
chair and R&H Mickle Endowed
Chair; NSF SHREC Center director,
Swanson School of Engineering

Michael Goodhart, professor,
Kenneth P. Dietrich School of Arts
and Sciences

Joel M. Haight, associate professor of
industrial engineering, Swanson
School of Engineering

David A. Harris, John E. Murray
Faculty Scholar, professor of law,
School of Law

Jingtong Hu, assistant professor,
Swanson School of Engineering

M. Zia Hydari, assistant professor,
Pitt Business

Alex Jones, professor; associate
director, NSF SHREC Center,
Swanson School of Engineering

Kate Joranson, head librarian,
University Library System

James Joshi, professor, School of
Computing and Information

Michael Kenney, associate professor,
program director of international
affairs, Graduate School of Public
and International Affairs

Prashant Krishnamurthy, professor,
School of Computing and
Information

Howard A. Kuhn, adjunct professor,
Swanson School of Engineering

John R. Lange, assistant professor,
School of Computing and
Information

Alison Langmead, clinical associate
professor, Department of History
of Art and Architecture, Kenneth
P. Dietrich School of Arts and
Sciences; director, Visual Media
Workshop; associate professor,
School of Information Sciences

Adam J. Lee, associate dean, associate
professor, School of Computing and
Information

Stephen Lee, assistant professor of
computing and information

Sera Linardi, assistant professor,
Graduate School of Public and
International Affairs

Michael J. Madison, faculty director of
Innovation Practice Institute,
professor of law, School of Law

Daniel Mosse, professor, School of
Computing and Information

Audrey J. Murrell, associate dean;
director, David Berg Center for
Ethics and Leadership, Pitt Business

Lisa S. Nelson, associate professor,
Graduate School of Public and
International Affairs

Mary L. Ohmer, associate professor,
School of Social Work

Balaji Palanisamy, professor, School
of Computing and Information

Jennifer Petrie, assistant director,
David Berg Center for Ethics and
Leadership, adjunct faculty

Michael Poznansky, assistant professor, Graduate School of Public and International Affairs

Stephen Quigley, visiting lecturer, Kenneth P. Dietrich School of Arts and Sciences

Ana Radovic, assistant professor of pediatrics, School of Medicine

Gregory Reed, director, Center for Energy and Energy Grid Institute, Swanson School of Engineering

Julia M. Santucci, senior lecturer and director, Graduate School of Public and International Affairs

Jonathan Silverstein, chief research informatics officer, Department of Biomedical Informatics; visiting professor, biomedical informatics

David Tipper, professor, School of Computing and Information

Albert C. To, associate professor and CNG faculty fellow; director, MOST-AM Consortium; director, ANSYS Additive Manufacturing Research Laboratory, Swanson School of Engineering

Annette Vee, assistant professor, Department of English

Götz Vesper, Nickolas DeCecco Professor, associate director, Center for Energy, Swanson School of Engineering

Brian Vidic, director of partnerships, Office of Economic Partnerships

Martin B.H. Weiss, chair, Department of Informatics and Networked Systems; professor, School of Computing and Information

Phil Williams, professor; director, Matthew B. Ridgway Center for International Security Studies, Graduate School of Public and International Affairs

Christopher E. Wilmer, assistant professor, Swanson School of Engineering

Lingfei Wu, assistant professor, School of Computing and Information

Judith Chun-Hsu Yang, William Kepler Whiteford Professor, Swanson School of Engineering

Bo Zeng, assistant professor, Swanson School of Engineering

Taieb Znati, chair, Department of Computer Science; professor, School of Computing and Information

Affiliate Practice Scholars

Pitt Cyber's Affiliate Practice Scholars are drawn from across the industry and policy worlds.

Lt. Col. Diana Bishop, Detachment 730 commander and professor, Aerospace Studies, Air Force ROTC

Michael A. Comber, partner, Farrell & Reisinger, LLC

Christopher A. Geary, unit chief, Cyber Initiative & Resource Fusion Unit, FBI Cyber Division

Bob Gradeck, project manager, Western Pennsylvania Regional Data Center

James T. Kitchen, counsel, Jones Day

Martin Lindner, managing principal consultant, SecureWorks

Leona Mitchell, professor of practice, School of Computing and Information

Keith Mularski, advisory executive director of cybersecurity, Ernst & Young LLP

Harvey Rishikof, director of cybersecurity, Applied Research Laboratory for Intelligence and Security, University of Maryland

New Staff Spotlight

Michael Colaresi is Pitt Cyber's new research and academic director as of July 2019. Colaresi is the William S. Dietrich II Chair of Political Science and a Pitt Cyber affiliate scholar. In his new role as Pitt Cyber's research and academic director, Colaresi will lead engagement with stakeholders in the university academic community and develop cross-disciplinary research programs with Pitt Cyber affiliate scholars.

Colaresi succeeds professor of law **Michael Madison**, who served the institute's first academic director, following the conclusion of Madison's appointment. Professor Madison remains a senior scholar of Pitt Cyber.



University of
Pittsburgh

Institute for Cyber Law, Policy, and Security

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