

Heriberto A. Acosta-Maestre, Ph.D.

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AREAS OF EXPERTISE

Cybersecurity and Cyber Policy

Western Hemisphere Security and Defense Policy

Quantum Computing and Post-Quantum Security

Artificial Intelligence and Emerging Technologies

Space Security and Space Policy

Academic Conference Leadership and Organization

EDUCATION

Ph.D. in Information Systems | Nova Southeastern University

Master of Computer Science in Knowledge Discover & Data Mining | Polytechnic University of Puerto Rico

Bachelor of Science in Computer Engineering | Polytechnic University of Puerto Rico

PROFESSIONAL EXPERIENCE

William J. Perry Center for Hemispheric Defense Studies | Washington, DC

Cyber Policy Fellow | December 2024 - Present

Employed by Akima, LLC

- Serve as Deputy Course Director for the Cyber Fundamentals Course 2026, supporting syllabus development and preparation of instructional materials.
- Support the development and delivery of online and in-person courses on cybersecurity, artificial intelligence, and emerging technologies, with applications to defense, for civilian and military audiences across the Americas.
- Develop and facilitate cybersecurity exercises and tabletop simulations focused on critical infrastructure, ransomware, and cyber incidents. Design and test new exercise concepts for CYBER-AI 2027.
- Deliver lectures and workshops, facilitate breakout groups, and identify assigned readings. Mentor participants and review final policy papers, providing feedback on cybersecurity policy, strategy, and implementation.
- Research and write on cybersecurity, artificial intelligence, and quantum technologies, with emphasis on hemispheric defense. Assist Dr. Boris Saavedra with research on automation and AI in military drone systems.

Puerto Rico Army National Guard | San Juan, Puerto Rico

Independent Contractor | July 2009 - December 2024

Program Administrator, Distributed Learning Program | October 2019 - December 2024

- Oversaw multiple technical projects for the PRNG/G6 CIO, managing budgets and schedules while coordinating scope and risk in support of force training and command-and-control requirements.
- Led a technical team managing 92 workstations and 180 laptops supporting approximately 10,000 users, including Guard members, civilian employees, contractors, and family members.
- Managed an average operating budget of approximately \$300,000 and improved site usage by 106% through process improvements and new technical solutions.
- Served as Program Information Assurance Security Officer, applying CIS standards and CMMC 2.0 processes while supporting enterprise security solutions aligned with zero-trust architecture.
- Prepared technical proposals, briefs, and presentations with G6 system administration and cybersecurity personnel for state government, National Guard Bureau, and PRNG executive leadership.

IT Project Manager, State Affairs Office | June 2019 - September 2019

- Defined requirements and coordinated stakeholders for the COR3 Disaster Recovery System, FEMA Grants Portal, and associated disaster-expense and reimbursement data.
- Served as a disaster-recovery subject matter expert, identified process deficiencies, recommended continuity measures, and briefed agency leadership on risks and solutions.

Site Administrator | July 2009 - April 2019

- Administered and troubleshot a decentralized network spanning three computer learning centers and more than 200 desktops and laptops.
- Served as lead subject matter expert on program security infrastructure, conducted recurring assessments, and used resource-usage data to improve services and help the program reach the top 15 most used nationally.

- Served as Software Manager on a \$20 million public-sector contract for the Puerto Rico Aqueduct and Sewer Authority, leading the island-wide Water Meter Customer Census program.
- Led system design and integration, defined requirements, and oversaw security analysis and deployment of handheld and web applications for 60 field crews serving more than 1.4 million customers.
- Managed network and database infrastructure, cloud and software-development environments, and endpoint and hardware technologies while supporting senior leadership and disaster-recovery planning.

SELECTED TEACHING, WORKSHOPS, AND INVITED PRESENTATIONS

William J. Perry Center for Hemispheric Defense Studies

September 2026 (ongoing) Cyber Fundamentals Course 2026. Deputy Course Director. Recorded three modules covering cybersecurity standards and procedures, incident response, and generative AI and quantum computing in cybersecurity. Developed topic questions and a policy-paper template, selected assigned readings, and mentored work groups.

FY2026 (in progress) Online Space Policy Fundamentals Course. Developing two modules on cybersecurity and AI in the space domain. Recorded instructional videos and searched for assigned readings for both modules.

July 2026 La inteligencia artificial en la defensa del hemisferio: Avances, retos, y oportunidades (*Artificial Intelligence in Hemispheric Defense: Advances, Challenges, and Opportunities*). Parlamento Centroamericano (PARLACEN), Guatemala. Perry Center engagement.

April - May 2026 Cyber Policy Development and Artificial Intelligence Applications for Defense (CYBER-AI 2026). Contributed to course development, delivered instruction on ransomware and critical-infrastructure protection, and facilitated breakout groups. Ran two cyber crisis-management tabletop simulations, selected assigned readings, and reviewed final policy papers.

March 2026 Estrategia y Política Espacial (*Space Strategy and Policy*). Universidad de la Defensa Nacional (UNDEF), Argentina. Represented the Perry Center, delivered two presentations, and mentored breakout groups:

- IA y espacio: implicaciones para la seguridad - Infraestructura crítica, ciberseguridad, resiliencia operativa, y estabilidad estratégica (AI and Space: Implications for Security).
- Integración de la seguridad cibernética y espacial - Espacio como infraestructura crítica, riesgo sistémico, y gobernanza estratégica (Integration of Cyber and Space Security).

February 2026 Curso Asincrónico de Políticas y Estrategias de Ciberseguridad para El Salvador, Guatemala y México (*Asynchronous Course on Cybersecurity Policies and Strategies for El Salvador, Guatemala, and Mexico*). Contributed to course development and academic content. Delivered L14A, Normas y procedimientos de ciberseguridad, and L20A, Respuesta a incidentes. Mentored a breakout group, selected assigned readings, and reviewed final policy papers.

August - September 2025 Desarrollo de Políticas Cibernéticas y Aplicaciones de la Inteligencia Artificial para la Defensa (CYBER-AI 2025) (*Cyber Policy Development and Artificial Intelligence Applications for Defense*). Facilitator. Delivered Impacto del Ransomware en las Infraestructuras Críticas and led major course exercises on critical infrastructure and social-media cyber incidents.

May 2025 Caribbean Security and Defense Course 2025. Delivered Artificial Intelligence and Quantum Computing in Caribbean Cybersecurity: Strategic Insights for Policymakers and Defense Leaders.

Independent Invited Presentations

August 11 - 13, 2026 Jornadas de Inteligencia Artificial aplicada a la Defensa, Seguridad e Inteligencia, Edición 2026 (*2026 Conference on Artificial Intelligence Applied to Defense, Security, and Intelligence*). Universidad de la Defensa Nacional and Escuela Nacional de Inteligencia, Buenos Aires, Argentina. Delivered two presentations and participated in a closing panel:

- Ciberseguridad e IA: detección de amenazas avanzadas (APT) (Cybersecurity and AI: Detection of Advanced Persistent Threats).
- Gobernanza de la IA en defensa: marcos legales, éticos y doctrinarios (AI Governance in Defense: Legal, Ethical, and Doctrinal Frameworks).
- Panel: Escenarios futuros, riesgos, amenazas y oportunidades sobre la IA y una era postcuántica (Future Scenarios, Risks, Threats, and Opportunities for AI and a Post-Quantum Era).

June 2026 IA Generativa en la Empresa: Modelos frontera, riesgos y arquitectura segura (*Generative AI in the Enterprise: Frontier Models, Risks, and Secure Architecture*). Universidad Externado de Colombia, computer architecture class. Panorama académico y práctico para ciberseguridad empresarial.

Independent Invited Presentations (continued)

May 2026 Defensa Cibernética en el Mundo Real: Casos de éxito y aplicaciones estratégicas (*Cyber Defense in the Real World: Success Cases and Strategic Applications*). Cybersecurity symposium, Junta Interamericana de Defensa (JID).

May 2026 Inteligencia Artificial: Nuevos Riesgos en el Entorno Digital (*Artificial Intelligence: New Risks in the Digital Environment*). Congreso Jurídico del Instituto de Magistrados de la Corte de Apelaciones, Guatemala.

May 2026 IA y las amenazas digitales emergentes (*AI and Emerging Digital Threats*). Seminarios Permanentes de Derecho Penal e Inteligencia Artificial, Instituto Nacional de Ciencias Penales de México.

March 2026 Las Amenazas Cibernéticas Hemisféricas y la Ciberdefensa (*Hemispheric Cyber Threats and Cyber Defense*). Reunión de Seguridad Ciudadana, Comisión de Seguridad Hemisférica, Organización de los Estados Americanos (OEA).

October 27, 2025 Critical Infrastructure Cybersecurity. Nova Southeastern University Cybersecurity Forum

SELECTED RESEARCH AND PUBLICATIONS

Published

Saavedra, B., & Acosta, H. (2025). Avances en computación cuántica en el Antropoceno: retos y oportunidades para Latinoamérica y el Caribe. *Revista Defensa Nacional*, (11), 25-46.

Manuscripts and book projects under review

Acosta, H. A. *Cyber-Physical Warfare in Multidomain Operations and Lessons for Western Hemisphere Partners*. Manuscript under review.

El hemisferio post-cuántico: una oportunidad para el liderazgo tecnológico estadounidense. Contribution to the UNDEF book project led by Dr. Gonzalo Salimena. Book under review.

Chapter 5 contribution. *La gobernanza de la ciberseguridad en el contexto de la convergencia tecnológica: la inteligencia artificial generativa (IAGen), la computación cuántica y el hemisferio occidental*. In *Soberanía Digital: Gestión de los Riesgos Cibernéticos Impulsados por la IAG en América Latina y el Caribe*. Perry Center book project led by Dr. Boris Saavedra. Book under review.

SELECTED CERTIFICATIONS

CompTIA Security+ Certification, CompTIA

Certified Ethical Hacker V8, EC-Council

Operations Security Program Manager (OPSEC Level III) Qualified, U.S. Army

PROFESSIONAL SERVICE AND MEMBERSHIPS

Judge, Atlantic Council Cyber 9/12 Strategy Challenge | November 7-8, 2025

Senior Member, IEEE

Member, Association for Computing Machinery (ACM)

Served as Conference Chair for multiple ACM and IEEE conferences.

LANGUAGES

Spanish and English: Fully bilingual