ORESTEBAN CARABEO, PhD

ARTIFICIAL INTELLIGENCE, CYBERSECURITY & EMERGING TECHNOLOGY EXPERT

Miramar, FL | o.carabeo@gmail.com | (980) 833-8951 | LinkedIn

Patent Litigation Consultant | Intellectual Property Authority | Emerging Technology Disputes

Artificial Intelligence, Cybersecurity, and Intellectual Property Expert with 20+ years of experience providing independent technical analysis, expert opinions, litigation consulting, and intellectual property evaluations involving AI, cybersecurity, blockchain, biomedical engineering, and emerging technologies. Recognized for translating highly complex technical concepts into clear, defensible opinions for attorneys, corporations, and government agencies. ***Available for consulting, expert reports, depositions, arbitration, mediation, and trial testimony.***

EXPERT QUALIFICATIONS

- PhD in Artificial Intelligence
- Artificial Intelligence Inventor & Researcher
- Cybersecurity, Blockchain & IoT Authority
- International Speaker, Conference Chair & Published Researcher
- 20+ Years of AI, Cybersecurity, Emerging Technology
- Intellectual Property & Patent Law Specialist
- Inventor with 25+ U.S. Patents & Patent Applications
- University Professor & Doctoral Dissertation Committee Member

REPRESENTATIVE CAREER HIGHLIGHTS

25+ U.S. Patents & Patent Applications

- ✓ Invented and commercialized breakthrough technologies spanning AI, cybersecurity, blockchain, and biomedical engineering.

$20M+ Legal Cost Savings

- ✓ Applied AI-driven analytics and intellectual property expertise to reduce legal costs and strengthen litigation strategies.

50+ Litigation Matters Supported Annually

- ✓ Delivered independent technical analysis, patent evaluations, and expert consulting across complex technology disputes.

150+ AI Students Educated

- ✓ Co-developed an Artificial Intelligence degree program and educated the next generation of AI professionals.

180+ Research Projects Mentored

- ✓ Guided graduate and undergraduate research while serving on doctoral dissertation committees.

25+ International Conference Presentations & Leadership Roles

- ✓ Advanced AI innovation through keynote presentations, conference leadership, and published research.

5/5 Exceptional Performance Rating

- ✓ Earned the highest faculty performance rating based on teaching effectiveness, curriculum development, and student success.

"Oresteban is truly a remarkable individual whose technical expertise, innovative problem-solving abilities, and attention to detail consistently deliver outstanding results in addressing complex technical challenges." Roberto Espinosa, Sr. Embedded Engineer.

"Professor Carabeo is a phenomenal educator who excels at connecting with his audience while delivering exceptional instruction." Karl-Heinz Cherubin, Entrepreneur & Business Leader.

CREDENTIALS & APPOINTMENTS

- PhD, Artificial Intelligence
- M.S., Cybersecurity Management
- B.S., Health Science
- Doctoral Committee Member, Capitol Tech Univ.

AREAS OF EXPERTISE

- Rebuttal Expert Opinions
- Artificial Intelligence, Machine Learning
- AI Litigation Analytics
- Intellectual Property & Patent Analysis
- Cybersecurity & Digital Forensics
- Blockchain & IoT
- Medical Devices & Neurophysiology
- Digital Forensics
- IoT Security
- Technology Commercialization
- Software Engineering
- AI Governance & Regulatory Compliance

PATENT LAW

- 35 U.S.C. §§101, 102, 103 & 112

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EXECUTIVE CAREER HIGHLIGHTS

CAPITOL TECHNOLOGY UNIVERSITY ▪ LAUREL, MD **2025 – PRESENT**

DOCTORAL DISSERTATION COMMITTEE MEMBER

Doctoral Research Oversight | AI & Cybersecurity | Research Governance | Dissertation Evaluation

Selected to provide independent technical evaluation of doctoral research in artificial intelligence and cybersecurity, validating research quality, originality, and technical merit.

- **Guided 5+ doctoral researchers** in strengthening research methodologies, analytical frameworks, and dissertation quality.
- **Improved dissertation quality** through comprehensive evaluations of technical validity and scholarly rigor.
- **Achieved 100% compliance** with institutional research governance, ethics, and academic integrity standards.
- **Validated original research contributions**, supporting successful dissertation approvals aligned with emerging AI research.

KEISER UNIVERSITY ▪ **MIRAMAR, FL** **2023 to PRESENT**

FACULTY PROFESSOR, CYBERSECURITY & ARTIFICIAL INTELLIGENCE

150+ AI Program Enrollment | International AI Speaker | AI Curriculum Development

Recruited to develop the next generation of AI and cybersecurity professionals while advancing curriculum innovation, academic research, and institutional leadership. Serves as an international AI subject matter expert, doctoral dissertation committee member, and contributor to emerging artificial intelligence education initiatives.

- **Designed and launched the Bachelor of Science in Artificial Intelligence program**, enrolling 150+ students during its inaugural year.
- **Represented Keiser University internationally** as keynote speaker introducing the new AI degree program to regional media and academic leaders.
- **Appointed to the Doctoral Dissertation Committee**, evaluating doctoral research and mentoring graduate scholars.
- **Increased student achievement by 30%** through innovative instructional strategies and curriculum modernization.
- **Developed AI, cybersecurity, programming, and digital forensics curricula** aligned with evolving industry and accreditation standards.
- **Established strategic industry partnerships** supporting internships, research collaboration, and workforce development.

ST. THOMAS UNIVERSITY ▪ **MIAMI GARDENS, FL** **2018 – PRESENT**

ADJUNCT PROFESSOR OF COMPUTER SCIENCE, CYBERSECURITY & ARTIFICIAL INTELLIGENCE

180+ Student Research Projects | AI Publications | Conference Presentations | Applied Research

Deliver advanced instruction in computer science, cybersecurity, and artificial intelligence while mentoring undergraduate and graduate students in research, innovation, and applied technology development.

- **Mentored 180+ students** in artificial intelligence, machine learning, cybersecurity, and software engineering, advancing research capabilities and preparing graduates for careers with leading technology organizations.
- **Authored 10+ peer-reviewed publications and delivered 5+ IEEE/ACM conference presentations**, advancing research in artificial intelligence, cybersecurity, and emerging technologies.
- **Integrated real-world engineering challenges into multidisciplinary AI and cybersecurity research**, strengthening applied learning, innovation, and technology development.

BIOMOLECULAR LLC ▪ **MIAMI, FL** **2009 – PRESENT**

FOUNDER, CEO & PRINCIPAL INVESTIGATOR

25+ Patent Portfolio | AI Research | Biomedical Innovation | Technology Commercialization

Founded and lead a multidisciplinary research organization focused on advancing artificial intelligence, biomedical engineering, and cybersecurity technologies from concept through commercialization while directing intellectual property strategy and innovation initiatives.

- **Secured 4+ U.S. patents** and advanced multiple patent applications through pioneering AI, biomedical engineering, and cybersecurity innovations.
- **Directed end-to-end research, development, validation, and commercialization** of AI-enabled healthcare, medical device, and cybersecurity technologies.
- **Developed autonomous multi-agent AI systems** and governance frameworks supporting advanced cybersecurity, HIPAA compliance, and FDA-aligned regulatory standards.
- **Led multidisciplinary engineering and scientific teams** in accelerating innovation, intellectual property development, and technology commercialization.

CYBER ALIENS, LLC **2018 – 2021**

AI & INTELLECTUAL PROPERTY CONSULTANT

1+ Issued Patent | 6+ Intellectual Property Assets | $120M+ DARPA Proposal | Litigation & IP Consulting

Directed innovation strategy across artificial intelligence and cybersecurity initiatives while supporting patent development, intellectual property protection, and commercialization of emerging technologies.

- **Generated 1+ issued patent and managed 6+ intellectual property assets,** strengthening technology innovation and long-term intellectual property protection.
- **Invented the Blockchain Cybersecurity Encryption System (U.S. Patent No. 10,673,617)** integrating identity and access management, blockchain authentication, and encrypted microchip technologies supporting secure IoT environments.
- **Advanced AI and cybersecurity architectures** supporting DARPA technology evaluation initiatives and next-generation defense capabilities.
- **Advised executive leadership, inventors, engineers, and legal counsel** on intellectual property strategy, technology commercialization, and complex corporate transactions involving mergers, acquisitions, and IP assets.

NEUROTRONIX ENTERPRISE ▪ HIALEAH, FL **2016 – 2018**

CYBERSECURITY SYSTEMS ARCHITECT

Enterprise Security Architecture | Embedded Systems | Blockchain Security | Applied R&D

Designed secure enterprise and embedded system architectures while integrating advanced cybersecurity technologies, risk modelling, and patentable engineering innovations.

- **Designed secure enterprise and embedded system architectures**, integrating advanced cybersecurity technologies, blockchain security, and patentable engineering innovations to strengthen next-generation digital infrastructure.
- **Engineered advanced cybersecurity architectures** integrating microchip security, blockchain technologies, and distributed systems to enhance enterprise resilience, data protection, and secure communications.
- **Developed patentable cybersecurity innovations** by collaborating with multidisciplinary engineering teams to design next-generation secure technologies and embedded system solutions.

ARMIJO & ASOCIADOS ▪ PANAMA **2008 – 2018**

GLOBAL IP & AI STRATEGY CONSULTANT

$20M+ Legal Cost Savings | 50+ Litigation Matters Annually | 90%+ Case Success Rate | Global Consulting

Advised legal teams and executive leadership on AI-driven legal analytics, intellectual property strategy, litigation support, and technology commercialization across complex international engagements.

- **Generated $20M+ in legal cost savings** by leveraging AI-driven litigation analytics, predictive modelling, and legal technology solutions.
- **Supported 50+ litigation matters annually**, strengthening case strategy through AI-powered decision support, legal forecasting, and technical analysis.
- **Managed patent strategy for AI-enabled medical device and neurophysiologic stimulation technologies,** providing technical guidance on intellectual property protection, patentability, and commercialization.
- **Conducted independent technical evaluations and patent claim analysis under 35 U.S.C. §§101, 102, 103, and 112** involving AI, software, cybersecurity, medical device, and emerging technology matters.

ADDITIONAL LEADERSHIP EXPERIENCE

Senior Hardware–Software R&D Architect, Mitosis Inc. | **Cybersecurity Research Contributor**, DARPA | **Director of Operations**, Kaplan University / Happy Health Hub | **Co-Owner & Biomedical R&D Partner**, CureDiabetes2 Inc. | **Senior Biomedical R&D Consultant**, Nevada Biomolecular Systems Corp. | **Owner & Senior Biomedical Engineer**, Bio-Molecular Group Corp. | **Clinical Audiologist & Senior Biomedical Research Specialist**, E&E Medical Center | **President & CEO / Clinical Audiologist**, Banamed Dynamic Inc. | **Independent Vestibular Technology Consultant**, Medical Advertisement Group
Vestibular Diagnostics Consultant (Aerospace Medicine), American Institute of Aerospace Medicine

EDUCATION & OTHER CREDENTIALS

Doctor of Philosophy (PhD), Artificial Intelligence | GPA: 4.0 2025
CAPITOL TECHNOLOGY UNIVERSITY, Laurel, MD

XSeries Program, Fundamentals of Neuroscience | Grade: A 2024
HARVARD UNIVERSITY, Cambridge, MA

Master of Science (M.S.), Cybersecurity Management & Information System Auditing | GPA: 3.57 2017
ST. THOMAS UNIVERSITY, Miami Gardens, FL

Bachelor of Science (B.S.), Health Science | GPA: 3.97 2016
KAPLAN UNIVERSITY (Purdue University Global), Chicago, IL

CERTIFICATIONS & LICENSES

Human Subjects Research Ethics (CITI), Good Clinical Practice (GCP), NIH – Protecting Human Research Participants, HIPAA Compliance, FDA Responsible AI Governance, Intellectual Property & Patent Law, Machine Learning & Deep Learning (MathWorks MATLAB)

SELECTED PUBLICATIONS

- Doctoral Dissertation, Integration of Artificial Intelligence, Innovative Neurophysiologic Electromagnetic Stimulation, and Reverberatory Circuitry in Diabetes Treatment (2025)
- Integration of AI, Electromagnetic Waveforms & Reverberatory Circuitry in Diabetes Treatment – ISRAI International Summit (2024)
- Advanced Neurophysiologic Stimulation Device Integrating AI and Electromagnetic Waveforms (2025)
- A Cure for Diabetes Type 2 and How We Discovered It (2015)

SELECTED U.S. PATENTS

- U.S. Patent & Trademark Office, 2020, U.S. Patent No. 10,673,617, entitled Methods, System and Point-to-Point Encryption Device Microchip for AES-SEA 512-Bit Key Using Identity Access Management Utilizing Blockchain Ecosystem to Improve Cybersecurity
- U.S. Patent & Trademark Office, 2014, U.S. Patent No. 8,768,468, entitled Device for Neuro-Physiologic Stimulation
- U.S. Patent & Trademark Office, 2014, U.S. Patent No. 8,688,240, entitled Device for Neuro-Physiologic Stimulation
- U.S. Patent & Trademark Office, 2013, U.S. Patent No. 8,457,745, entitled Method, System and Apparatus for Control of Pancreatic Beta Cell Function to Improve Glucose Homeostasis and Insulin Production

HONORS: ISACA Information Auditor Scholarship, Presidential Honors List

TECHNICAL EXPERTISE

Artificial Intelligence: Generative AI, Agentic AI, Machine Learning, Deep Learning, LLMs
Cybersecurity: Blockchain, Cryptography, IoT Security, Ethical Hacking
Programming: Python, C/C++, Java, JavaScript
Platforms: AWS, Azure, Docker, Kubernetes, MLflow

PROFESSIONAL MEMBERSHIPS

- IEEE, ACM, ISACA, ORCID Researcher