Iraklis Symeonidis

Senior Cybersecurity Architect \ PhD, MSc, ISO/IEC 27001 Certified

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Professional Summary

Senior Research Scientist at RISE and cybersecurity professional with over a decade of experience securing critical infrastructure and leading teams within complex, multi-stakeholder environments. Expert in coordinating technical and regulatory teams to bridge the gap between engineering execution and strategic governance, ensuring robust alignment with ISO/IEC 27001, GDPR, and emerging EU regulations. Proven ability to translate regulatory frameworks into practical, engineering-driven solutions for cross-domain environments. Recognized for orchestrating secure architecture design, cyber resilience, and governance by aligning cross-functional stakeholders to drive informed, risk-based decision-making. Collaborative team player and communicator, dedicated to fostering a security-first culture and empowering teams to navigate the evolving cybersecurity landscape.

Technical & Leadership Skills

Technical Skills

Cyber Resilience and Secure Architectures
Security-by-Design and DevSecOps
AI/ML Security and OT/IT Industrial Security
ISO/IEC 27001 Lead Auditor Certified
Regulatory Awareness (GDPR, AI Act, CRA)

Leadership Skills

Cybersecurity Architectural Guidance
Cross-Functional Coordination
Technical Guidance and Mentoring
Security Culture and Team Enablement
Governance and Strategic Decision-Making

Professional Experience

2022 – Present **Cybersecurity Architect and Senior Researcher**, *RISE Research Institutes of Sweden*
- Lead secure architecture design for critical infrastructure (Automotive, Telecom, Manufacturing) by embedding security-by-design and DevSecOps principles.
- Direct cybersecurity strategy and governance, ensuring alignment with ISO/IEC 27001, GDPR, the AI Act, and emerging EU regulations.
- Secure and lead industrial collaborations (Horizon Europe, Vinnova), translating advanced research into applied industrial outcomes.
- Mentor engineering teams on threat modeling and risk assessment to foster a resilient security culture.

2020 – 2022 **Scientist, Secure Communications and Cybersecurity**, *KTH Royal Institute of Technology*
- Designed secure architectures for connected mobility systems with emphasis on resilience, integrity, and safety-critical communication.
- Modeled cybersecurity requirements and system behavior for distributed vehicular and edge-based architectures.
- Mentored researchers and students in secure networking, applied cryptography, and security engineering.

2018 – 2020 **Scientist, Secure Communications and Architectures**, *University of Luxembourg*
- Evaluated security of enterprise communication platforms with focus on end-to-end encryption and data protection.
- Supported architecture reviews for secure identity, authentication, and data exchange systems.

2012 – 2018 **Scientist, Secure Systems Architectures**, *KU Leuven (COSIC)*
- Led research on large-scale ecosystem security risks, including analysis of third-party application vulnerabilities (Cambridge Analytica case).
- Designed secure data-sharing, key management, and dynamic access management architectures applied in automotive ecosystems.

Selected Projects & Research

2023 – Present **Automotive, Manufacturing, Supply Chain and Cybersecurity**

I. **TWINLOOP (Horizon Europe):** Secure Systems Architecture Lead for a Zero-Trust Digital Twin framework for software-defined electric vehicles. Designed reference security architecture (vehicle-edge-cloud), led threat modeling, and defined controls for cross-OEM interoperability. Security principles and modeling for distributed digital twin operations in automotive and industrial settings.
II. **Manufacturing OT/IT Cybersecurity:** Contributed to risk assessments, OT/IT threat modeling, and secure automation practices in industrial environments.
III. **Datadelning i en digitaliserad köttkedja (FORMAS):** Research on cybersecurity, privacy, and secure data-sharing mechanisms for industrial digitalization and supply-chain transformation.

2023 – Present **Next-Generation Networks and Cybersecurity**

I. **CitCom.ai (Digital Europe and Vinnova):** Contribution on cybersecurity, resilience, and connectivity for Data Space connector services. Designed and validated cybersecurity components including identity-based access control, security for data at transfer and at rest for edge/IoT platforms.
II. **BEiNG-WISE (COST Action):** Working Group Leader coordinating research on cybersecurity in next-generation wireless systems (5G/6G), including workshops, training, and cross-disciplinary collaboration.

2025 – Present **Sovereignity, Governance and Cybersecurity**

I. **NexusForum (Horizon Europe):** Working Group Co-leader of the cybersecurity working group, contributing to the European Research and Innovation Roadmap on secure cognitive computing continuum ecosystems.
II. **AI/ML Security Threats:** Research on cyber risks emerging from AI-driven and autonomous systems, focusing on robustness, model integrity, and alignment with EU regulatory frameworks (AI Act). Governance and risk modeling contributions across EU-funded projects assessing AI system reliability, secure deployment pipelines, and compliance for safety-critical functions.

Degree Qualifications

2018 **PhD in Secure and Privacy-Preserving Systems Architectures (automotive focus)**, *KU Leuven*, Belgium

2013 **MSc in Digital Systems Security**, *University of Piraeus*, Greece

2004 **Diploma in Information and Communication Systems Engineering**, *University of the Aegean*, Greece

Certifications & Training

2013 **ISO/IEC 27001 Lead Auditor**, *TÜV NORD*

2014 **Advanced Cyber Security Course**, *ENCS, The Hague*

2014 **Secure Application Development**, *SecAppDev, Belgium*

2007 **"Modern pedagogical and teaching methods in education"**, *KPH Graz*, Austria

Languages

English (Fluent), Greek (Native), Swedish (A2)

References

References upon request