# Peter van Liesdonk

## Personal Information


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| **Full Name:** | Peter Petrus van Liesdonk | | |
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| | | **Nationality:** | Dutch |
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| **Birthday:** | 22 September 1981 | | |


## Summary


I am an architect and researcher in **product security** with a background in **applied cryptography and mathematics**.

My passion lies in the combination of **product development** with **information security** and **cyber security**, which I prefer to pursue through both research and design and application of the technology required as well as the designing processes needed to get there.

Technical interests include (privacy preserving) artificial intelligence, post-quantum cryptography, cryptographic protocols and business architecture. I also very much enjoy teaching and coaching.

I'm currently open to opportunities to expand or shift my working domain.


## Experience

**05/2021 – today** **Senior Product Security Architect at ASML, Veldhoven (NL)**

Setting up a product security compliance domain from scratch covering the whole product portfolio. Apart from SME for all product lines, I held the following roles:

*Domain Architect Product Security*
Responsible for setting up governance, risk- and compliance processes, eliciting both functional and non-functional requirements, developing and maintaining a reference architecture and embedding into the company's product development processes.

*Technical Competence Lead/Owner*
Responsible/accountable for all product security related policies and standards, for the cross-product reference architecture, as well as for developing and providing technical trainings and expertise.

*Function Cluster Architect (a.i. during creation)*
Lead architect responsible for developing cross-security building blocks to be re-used over the whole product line as a system-of-systems: an Account & Access management system, a PKI and key management systems, and privileged access modules.

*Product Owner Product Security (a.i. during reorganization)*
Responsible for intake, organization and prioritization of work for a team of architects and experts.

**12/2014 – 04/2021** **Senior Research Scientist Digital Security at Philips Research, Eindhoven (NL)**

I primarily worked on the following topics as a researcher and project lead:

*Privacy preserving data analytics*:
Using cryptographic technologies like secure multi-party computing and homomorphic encryption, it is possible to work with sensitive data with absolute guarantees to privacy and/or data value. This project has led to 10+ patent grants and several public-private partnerships.

*Consent Management and Data Governance:*
The new GDPR regulations require management and enforcement of fine-grained consent. This work entails the design of a reference security architecture for an information model and a reusable reference monitor for enforcement of consent in Philips' FHIR-based data management platforms.

*AI Security*
Technical work includes training stealth neural networks to detect artificially generated fake images. (specially for MRI scanners). Also created a threat assessment framework for developing and deploying AI-based propositions by Philips businesses; identify tactical and strategic mitigations. This framework led to increased efforts in explainable AI and increased governance on training sets.

*Security Standardization:*
Monitor, contribute to and represent Philips IP&S on security topics.
As member of HL7 Security WG, developed the security and privacy consent models to be used as part of FHIR medical data exchange.
As member of SNIA Cloud Storage WG, developed an encrypted object extension to the CDMI Cloud Data Management Interface standard, as well as contribute a reference implementation server in JAVA.

**12/2011 – 11/2014** **Cryptographer / Security Architect at Compumatica secure networks BV, Uden (NL)**

Worked on research and development of cryptographic solutions in Compumatica's products for processing of highly confidential data, most of these designs targeting Common Criteria EAL 5+:

This work includes development of protocols, custom cryptography, and product security architecture for firewalls and VPN concentrators.

This position required an AIVD security clearance.

**11/2007 – 10/2011** **PhD candidate at Eindhoven University of Technology**

PhD position on the project "Searchable Data Encryption", granted by STW/Sentinels.

Research focused mostly on provably secure cryptographic protocols with an application in cloud computing. Keywords: identity-based encryption, attribute-based encryption, predicate encryption, public-key encryption with keyword search.

## Professional Certifications

**ISC2** Certified Cloud Security Professional (CCSP)
Information Systems Security Architecture Professional (CISSP-ISSAP)
Certified Information Systems Security Professional (CISSP)

**ISACA** Certified Information Security Manager (CISM)

## Education

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| **11/2007 – 10/2011** | **Research PhD, at Eindhoven University of Technology (did not defend thesis)**<br>Thesis: 'Anonymous Identity Based Encryption and Searching in Encrypted Data'<br>Promotors: prof. dr. ir. H.C.A. van Tilborg, prof. dr. Tanja Lange |
| **5/2000 – 9/2007** | **Industrial and Applied Mathematics (BSc.,MSc.) at Eindhoven University of Technology**<br>Specialization: Coding theory and cryptography |
| **9/1999 – 5/2000** | **Computer Science and Engineering (Unfinished) at Eindhoven University of Technology**<br>Switched to Industrial and Applied Mathematics |
| **9/1993 – 6/1999** | **High school VWO Cambreurcollege Dongen** |

## Skills

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| **Security** | Product security, Cryptography, Technical security controls, Secure SDLC, Governance & Risk Management, Cyber Resilience Act, IEC-62443 |
| **Architecture** | Software Architecture, Business Architecture, Project Architecture |
| **Software** | SDLC, Programming (Python/Java), Machine Learning |
| **Soft skills** | Problem solving, organizing, prioritizing, stakeholder management, coaching, leadership |