Iakovos Pittaras

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Education

2019 – 2025 Ph.D. in Computer Science, **AUEB**, Athens, Greece
Title: "Distributed Ledger Technologies meet the Internet of Things: Security, Interoperability, and Advanced Access Control"
Advisor: Prof. George C. Polyzos

2017 – 2019 M.Sc in Computer Science, **AUEB**, Athens, Greece
GPA 9.25/10 *Excellent* (Ranked 1^{st} in class)
Thesis: "Interacting with the Web of Things using blockchains" | Grade 10/10
Advisor: Prof. George C. Polyzos

2012 – 2017 Diploma in Informatics, **AUEB**, Athens, Greece
GPA 6.83/10 *Very Good*

2009 – 2012 High School diploma at **Varvakio** Model High School, Athens, Greece

Work Experience

01.2026 – now Senior Researcher at Internet Identity, Security, and Privacy Solutions (ExcID), Athens, Greece

07.2025 – now Post-doctoral researcher at Mobile Multimedia Laboratory of the Athens University of Economics and Business, Athens, Greece

Research Projects

With Internet Identity Security and Privacy Solutions P.C. (ExcID)

01.2026 – now Cyber Resilience Act made Easy (**CRACY**)
Funding: EU Digital Europe Programme (DIGITAL)

With Athens University of Economics and Business (AUEB)

07.2026 – now Promoting SUSTainable consumer behavior through AI-enabled Nudging (**SustAIn**)
Funding: Hellenic Foundation for Research & Innovation (H.F.R.I.)

01.2026 – now POst-quantum SEcure dIgital iDentities for eurOpean solutioNs (**POSEIDON**)
Funding: EU Horizon Europe (HORIZON)

05.2025 – 10.2025 Adaptive Video Delivery for Network Music Performance (**AVID-NMP**)
Funding: EU Horizon SNS JU 2022 open call project – 6G-XR

02.2025 – 09.2025 Secure and Efficient Data Spaces (**SeEDS**)
Funding: EU Horizon 2020 open call project – NGI Sargasso

09.2024 – 04.2025	Telepresence-Enhanced Network Music Performance (**TENeMP**) Funding: EU Horizon Europe programme – SPIRIT
07.2024 – 11.2024	Experimentation: Smart Contract-based Digital Twins for the IoT (**SCDT**) Funding: EU Horizon SNS JU 2022 open call project – 6G-SANDBOX
10.2023 – 06.2024	Secure Named Data Sharing (**SNDS**) Funding: EU Horizon 2020 open call project – NGI Sargasso
05.2023 – 03.2024	Interoperable solutions connecting smart homes, buildings and grids (**InterConnect**) Funding: EU Horizon 2020
04.2022 – 11.2022	Selective IoT data sharing (**SelectShare**) Funding: EU Horizon 2020 open call project – NGI DAPSI
10.2021 – 05.2022	Enabling Zero Trust architectures using OAuth 2.0 and Verifiable Credentials (**ZeroTrustVC**) Funding: EU Horizon 2020 open call project – NGI eSSIF-LAB
12.2020 – 09.2021	Multi Level DHT Design and Evaluation for IPFS (**MLDHT**) Funding: Protocol Labs, USA
11.2020 – 06.2021	Self Certifying Names for Named Data Networking (**SCN4NDN**) Funding: EU Horizon 2020 open call project – NGIatlantic.eu
09.2019 – 12.2020	Secure Open Federation for Internet Everywhere (**SOFIE**) Funding: EU Horizon 2020
04.2019 – 06.2019	Research on the Web of Things (WoT) Funding: AUEB-RC

Awards and Scholarships

2024 Best paper award for the paper **"Attribute-Based Access Control utilizing Verifiable Credentials for Multi-tenant IoT Systems,"** in IEEE 4th International Conference on Electronic Communications, Internet of Things, and Big Data, 2024

2018 Scholarship for being first in the class of M.Sc., based on GPA

Publications

Citation indices

Google Scholar: https://scholar.google.com/citations?user=jtMPy5sAAAAJ&hl=en
384 citations (as of early July 2026); h-index = 10; $i10$-index = 11
My co-authors list includes 28 scientists from 10 institutions, located in 7 countries

A. Journal Publications

A1. I. Pittaras, N. Fotiou, C. Karapapas, V. A. Siris, and G. C. Polyzos, "Secure smart contract-based digital twins for the Internet of Things," in Blockchain: Research and Applications, volume 5, Issue 1, 2024

A2. N. Fotiou, I. Pittaras, V. A. Siris, G. C. Polyzos, and P. Anton, "A privacy-preserving statistics marketplace using local differential privacy and blockchain: An application to smart-grid measurements sharing," in Blockchain: Research and Applications, Volume 2, Issue 1, 2021.

A3. I. Pittaras, N. Fotiou, V. A. Siris, G. C. Polyzos, "Beacons and Blockchains in the Mobile Gaming Ecosystem: A Feasibility Analysis," in Sensors, Volume 21, No 3:862, 2021.

B. Refereed International Conference and Workshop Papers

B1. J. M. M. Espin, J. Garcia-Rodriguez, A. Skarmeta, S. More, S. Panda, I. Pittaras, V. A. Siris, "A Post-Quantum Security Framework for European Digital Identities," in Proceedings of the International Workshop on Advances on Security and Privacy Technologies and Solutions (IWAPS), Linköping, Sweden, August 2026.

B2. S. Panda, D. Jena, I. Pittaras, V. A. Siris, T. Tsouparopoulos, N. Fotiou, I. Koutsopoulos, J. Garcia-Rodriguez, J. M. M. Espin, A. Skarmeta, "A Data Lifecycle-Aware Risk Assessment Framework for Post-Quantum Cryptography," in Proceedings of the 3rd Workshop on Quantum-Secure Networks and Systems (QSNS), Vilamoura, Portugal, June 2026.

B3. C. Karapapas, I. Pittaras, G. C. Polyzos, and C. Patsakis, "Hello, won't you tell me your name?: Investigating Anonymity Abuse in IPFS," in Proceedings of the 13th International Workshop on Cyber Crime (IWCC), Ghent, Belgium, August 2025.

B4. Y. Thomas, N. Fotiou, I. Pittaras, and G. Xylomenos, "Secure and Efficient Data spaces over Named Data Networking," in Proceedings of the 2025 IFIP Networking Conference (IFIP Networking), Limassol, Cyprus, May 2025.

B5. C. D. Nassar Kyriakidou, I. Pittaras, A. M. Papathanasiou, G. Xylomenos, and G. C. Polyzos, "Performance of Smart Contract-based Digital Twins for the Internet of Things," in Proceedings of the 2nd ACM International Workshop on Middleware for Digital Twins (Midd4DT), Hong Kong, China, December 2024.

B6. A. M. Papathanasiou, C. D. Nassar Kyriakidou, I. Pittaras, and G. C. Polyzos, "Smart contract-based decentralized mining pools for Proof-of-Work blockchains," in Proceedings of the 2024 IEEE International Conference on Blockchain, Copenhagen, Denmark, August 2024.

B7. N. Fotiou, C. D. Nassar Kyriakidou, A. M. Papathanasiou, I. Pittaras, Y. Thomas, and G. Xylomenos, "Certificate Management for Cloud-Hosted Digital Twins," in Proceedings of the 29th IEEE Symposium on Computers and Communications (ISCC), Paris, France, June 2024.

B8. C. D. Nassar Kyriakidou, A. M. Papathanasiou, I. Pittaras, N. Fotiou, Y. Thomas, and G. C. Polyzos, "Attribute-based Access Control Utilizing Verifiable Credentials for Multi-Tenant IoT Systems," in Proceedings of the 4th IEEE International Conference on Electronic Communications, Internet of Things, and Big Data (ICEIB), Taipei, Taiwan, April 2024.

B9. I. Pittaras and G. C. Polyzos, "Multi-tenant, Decentralized Access Control for the Internet of Things," in Proceedings of the 2023 IEEE International Conference on Internet of Things, and Intelligence Systems (IoTaIS), Bali, Indonesia, November 2023.

B10. Y. Thomas, N. Fotiou, I. Pittaras, G. Xylomenos, S. Voulgaris, and G. C. Polyzos, "Peer Clustering for the InterPlanetary File System," in Proceedings of the 2nd ACM SIGCOMM Workshop on Future of Internet Routing & Addressing (FIRA 2023), New York, USA, September 2023.

B11. N. Fotiou, I. Pittaras, S. Chadoulos, V. A. Siris, G. C. Polyzos, N. Ipiotis, and S. Keranidis, "Authentication, Authorization, and Selective Disclosure for IoT Data Sharing Using Verifiable Credentials and Zero-Knowledge Proofs," in Proceedings of the 5th International Workshop on Emerging Technologies for Authorizations and Authentication (ETAA), Copenhagen, Denmark, September 2022.

B12. A. M. Papathanasiou, C. D. Nassar Kyriakidou, I. Pittaras, and G. C. Polyzos, "R?ddle: A Fully Decentralized Mobile Game for Fun and Profit," in Proceedings of the 4th International Congress on Blockchain and Applications, L'Aquila, Italy, July 2022.

B13. C. Karapapas, G. Syros, I. Pittaras, and G. C. Polyzos, "Decentralized NFT-based evolvable games," in Proceedings of the 4th International Conference on Blockchain Research and Applications for Innovative Networks and Services (BRAINS), Paris, France, September 2022.

B14. I. Pittaras and G. C. Polyzos, "Secure and Efficient Web of Things Digital Twins using Permissioned Blockchains," in Proceedings of the 7th International Conference on Smart and Sustainable Technologies (SpliTech), Split and Bol, Croatia, July 2022.

B15. I. Pittaras, N. Fotiou, C. Karapapas, V. A. Siris, and G. C. Polyzos, "Secure, Mass Web of Things Actuation Using Smart Contracts-Based Digital Twins," in Proceedings of the 27th IEEE Symposium on Computers and Communications (ISCC), Rhodes, Greece, June 2022.

B16. N. Fotiou, E. Faltaka, V. Kalos, A. Kefala, I. Pittaras, V. A. Siris, and G. C. Polyzos, "Continuous authorization over HTTP using Verifiable Credentials and OAuth 2.0," in Proceedings of the Open Identity Summit 2022 (OID2022), Lyngby, Denmark, 2022.

B17. C. Karapapas, I. Pittaras, and G. C. Polyzos, "Fully Decentralized Trading Games with Evolvable Characters using NFTs and IPFS," in Proceedings of the Workshop on Decentralizing the Internet with IPFS and Filecoin (DI2F), Espoo, Finland, June 2021.

B18. C. Karapapas, I. Pittaras, N. Fotiou, and G. C. Polyzos, "Ransomware as a Service using Smart Contracts and IPFS," in Proceedings of the 2nd IEEE International Conference on Blockchain and Cryptocurrency (ICBC), Toronto, Canada, May 2020.

B19. N. Fotiou, I. Pittaras, V. A. Siris, S. Voulgaris, and G. C. Polyzos, "OAuth 2.0 authorization using blockchain-based tokens," in Proceedings of the 3rd NDSS Workshop on Decentralized IoT Systems and Security (DISS 2020), San Diego, CA, USA, February 2020.

B20. N. Fotiou, I. Pittaras, V. A. Siris, S. Voulgaris, and G. C. Polyzos, "Secure IoT access at scale using blockchains and smart contracts," in Proceedings of the 8th WoWMoM Workshop on Internet of Things: Smart Objects and Services (IoT-SoS), Washington DC, USA, June 2019.

C. Other Papers, Abstracts, Posters, & Demos

C1. Y. Thomas, N. Fotiou, I. Pittaras, and G. Xylomenos, "Poster: Named Data Networking for Data Spaces," in Proceedings of the 29th IEEE Symposium on Computers and Communications (ISCC), Paris, France, June 2024 (poster).

C2. I. Pittaras and G. C. Polyzos, "SmartTwins: Secure and Auditable DLT-based Digital Twins for the WoT," in Proceedings of the 18th International Conference on Distributed Com-

puting in Sensor Systems (DCOSS), Marina del Rey, Los Angeles, CA, USA, June 2022 (poster).

C3. N. Fotiou, I. Pittaras, V. A. Siris, S. Voulgaris, and G. C. Polyzos, "Poster: Securing IoT services using DLTs and Verifiable Credentials," in Proceedings of the Network and Distributed System Security Symposium (NDSS), San Diego, CA, USA, February 2020 (poster).

C4. N. Fotiou, I. Pittaras, V. A. Siris, and G. C. Polyzos, "Enabling opportunistic users in multi-tenant IoT systems using decentralized identifiers and permissioned blockchains," in Proceedings of the 2nd International ACM Workshop on Security and Privacy for the Internet-of-Things, (IoT S&P@CCS 2019). New York, NY, USA, 2019 (poster).

Teaching Experience

2022 – 2023 Teaching Assistant, Data Structures, Undergraduate course
Department of Informatics, AUEB.
Prof. Katia Papakonstantinopoulou

2020 – 2025 Teaching Assistant, Computer Networks, Undergraduate course
Department of Informatics, AUEB.
Prof. George Stamoulis

2019 – 2022 Teaching Assistant, Computer Organization and Design, Undergraduate course
Department of Informatics, AUEB.
Prof. Spyros Voulgaris

2019 – 2020 Teaching Assistant, Computer Architecture, Undergraduate course
Department of Informatics, AUEB.
Prof. Spyros Voulgaris

Professional activities

- Reviewer for Journal of Cleaner Production - Elsevier, Internet of Things - Elsevier, Blockchain: Research and Applications - Elsevier, Metaverse - Asia Pacific, Communications of the ACM - ACM, Journal of Supercomputing - Springer, ACM Computing Surveys - ACM, Advanced Engineering Informatics - Elsevier, Multimedia Tools and Applications - Springer
- Member of the Technical Program Committee (TPC) for the following conferences: Blockchain 21, Blockchain 22, Blockchain 23, Blockchain 24, Blockchain 25, Blockchain 26, B2C 2022, B2C 2023, B2C 2024, B2C 2025, B2C 2026, SpliTech 2023.

Languages

Native:	Greek
Fluent:	English — Certificate of Proficiency in English C2, ECPE
Elementary:	German — GOETHE-ZERTIFIKAT B1, ZERTIFIKAT DEUTSCH

Research Interests

- Authentication, Authorization, and Access Control
- Distributed Ledger Technologies
- Internet of Things and Web of Things

- Internet Security and Privacy
- Digital Identity and Self-Sovereign Identity

References

References available upon request.