OLIVIER ATANGANA

CBDC Senior Consultant • Cryptocurrency Researcher • PhD in Computer Science

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Career Profile

PhD in Secure Digital Payment Systems and researcher at Fime, specializing in CBDCs, digital identity, cybersecurity, privacy-enhancing technologies and trusted digital infrastructures. Combining academic research, industrial innovation and standardization activities to develop secure, interoperable and resilient digital payment ecosystems.

Education

PhD in Computer Science 2026
ENSICAEN / University of Normandy
Thesis: *Offline Payment Requirements for Central Bank Digital Currencies*

Engineering Degree in Computer Science and Electronics 2022
Polytech Dijon Engineering School
Specialization: Network Security and QoS

Professional Experience

CBDC Senior Consultant – Fime Sep. 2023–Present

- Advise financial institutions and central banks on CBDC architectures and deployment strategies.
- Define business and technical requirements, use cases and implementation roadmaps.
- Contribute to digital identity, interoperability, security and compliance aspects.

Cryptocurrency Researcher – Fime Jan. 2023–Present

- Research secure payment systems, digital identity and cryptographic protocols.
- Lead development of offline CBDC wallet proof-of-concepts and test tools.
- Publish scientific articles and technical reports.

Professional Memberships

- Digital Euro Association
- GlobalPlatform
- FIDO Alliance – FEWG EU Digital Identity Wallet Working Group

Selected Publications

- Block-PAD: A Blockchain-enabled Framework for Resilient and Flexible CBDC Transactions Leveraging Digital Identity. Computer Networks, 2026.
- Systematization of Knowledge on Offline-Capable Digital-Currency Protocols. ICFCDS 2026.
- Securing Offline CBDC Transactions: DigiVault Card and MarkoPayChain with Mobile Phone Integration. ICIN 2025.
- Securing Privacy in Offline Payment for Retail CBDC: A Comprehensive Framework. B2C 2023.

Technical Skills

- **Digital Currency & Digital Identity**
  CBDCs, Offline Payments, Digital Wallets, Digital Identity, Trust Services, Financial Infrastructures
- **Cybersecurity & Cryptography**
  Cryptographic Protocols, Authentication, Access Control, Privacy-Enhancing Technologies, Secure Communications
- **Blockchain & Distributed Systems**
  Blockchain Architectures, Distributed Ledger Technologies (DLT), Smart Contracts, Interoperability Frameworks
- **Artificial Intelligence**
  Fraud Detection, Explainable AI (XAI), Machine Learning, LightGBM, Random Forest
- **Programming**
  Python, C++, Kotlin, Java
- **Platforms & Tools**
  Linux, Docker, Git/GitHub, OpenStack, VMware ESXi, LaTeX
- **Standards & Ecosystems**
  eIDAS, Digital Identity Wallets, FIDO, GlobalPlatform, CBDC Ecosystems

Research Areas

- Central Bank Digital Currencies (CBDCs)
- Digital Identity and Trust Services
- Secure Digital Payments
- Privacy-Enhancing Technologies
- Applied Cryptography
- Financial Fraud Detection
- Blockchain and Distributed Systems
- Cybersecurity and Resilient Infrastructures
- Interoperability and Digital Trust Frameworks

Certifications

Cisco Certified Network Associate (CCNA)

- Routing and Switching
- Network Security
- Wireless Networks
- Cloud Computing and IoT

Selected Projects

Security Services in Cloud Computing Environments 2021

- Designed and deployed confidentiality and access control mechanisms using OpenStack.
- Evaluated security requirements and trust models for cloud infrastructures.

IoT Service Level Guarantee 2021

- Studied Quality of Service (QoS) and reliability mechanisms for IoT environments.
- Evaluated service-level guarantees under constrained network conditions.