

 Evry Courcouronnes, France
 smachara@gmail.com
 (+33) 6 48 58 69 31
 /in/samer-machara
 /smachara

EDUCATION

PhD in Computer Science

Université Paris-Saclay

2011 - 2015

Thesis: Context quality management models and algorithms and privacy respect (IoT).

Master in Computer Science & Networks

Institut Mines-Télécom Sud-Paris

2009 - 2011

Computer Science Engineer

Universidad Nueva Esparta (Vzla)

1995 - 2000

SKILLS

ARCHITECTURE

Microservices Hexagonal Multi-layer
DDD System Design REST API
Clean Architecture

DEVELOPMENT

Java (Spring Boot) Python PHP
JavaScript/TypeScript Node.js BDD
TDD Playwright

DATA & AI

PostgreSQL MySQL / MariaDB
MongoDB Elasticsearch
LLMs & AgentsAI N8N LangChain

Prompt Engineering (Gemini, Chatgpt, Claude)

MCP

DEVOPS & CLOUD

Kubernetes Docker Helm
CI/CD (GitLab / Jenkins) ArgoCD GCP
OVH Public Cloud

SAMER MACHARA MARQUEZ

TECHNICAL ARCHITECT & ENGINEERING MANAGER

Software Architect and Technical Lead (PhD) with over 25 years of experience in designing distributed systems and robust, secure microservices architectures. Expert in steering strategic projects in Agile environments, I combine strong technical expertise (Java, Cloud, IoT, AI) with proven team management skills. Passionate about large-scale data processing and operational excellence, I have a rich international background at the crossroads of technical direction, teaching, and R&D.

PROFESSIONAL EXPERIENCE

Technical Lead & Architect Agence du Numérique en Santé (ANS)

Feb. 2023 – Present | Paris, France

- Technical Leadership & Architecture:** Responsible for the architectural vision of critical national projects (FINESS, RIPSC). Steering, supervision, co-drafting, and drafting of Architecture Documents (DAT). Verification of architectural compliance and application of microservices and DDD rules.
- DevOps & Cloud Transformation:** Led the infrastructure migration for FINESS (VM/Nomad to Kubernetes/Helm/ArgoCD): from POC to full Public Cloud deployment. Implemented standardized CI/CD (SonarQube, OWASP, Trivy) and modernized the testing strategy (TNRA migration from Sahi-Pro to Playwright, asynchronous pipelines). Leveraged these components for the RIPSC project.
- Coordination & Management:** Collaborated with internal stakeholders (MOA, MOE) and managed external technical providers to ensure strategic alignment and adherence to deadlines.
- Standardization:** Created a best practices repository to standardize architectural practices and capitalize on return on experience (Knowledge Management).
- Security & Compliance:** Led technical compliance operations regarding EBIOS risk analysis, aiming for RGS certification and protection of sensitive data.

Project Manager - Scrum Master

Plug and Plate (Freelance)

Oct. 2021 – Dec. 2022 | Paris Region

- Agile Steering:** Complete management of the development cycle (SDLC) of web solutions for the restaurant industry using Scrum methodology.
- Product Strategy:** Scoping business needs, writing User Stories, and prioritizing the Backlog to maximize business value.
- Team Coaching:** Mentoring development teams, facilitating rituals, and organizing acceptance testing (UAT).

IT Production Director / Tech Lead

Testamento (Contrat Facil)

Oct. 2017 – Jan. 2020 | Gentilly, France

- Transformation:** Migration towards microservices architecture and industrialization (CI/CD).
- Management:** Implementing Scrum and supervising external service providers.

LANGUAGES

French: Fluent (C2)

English: Fluent (C1)

Spanish: Native

PUBLICATIONS & RESEARCH

"A survey on addressing privacy together with quality of context for context management in the Internet of Things"
Annals of Telecommunications, Springer, Vol. 69, pp. 47-62 (2014)

"Trust-based Context Contract Models for the Internet of Things"

IEEE International Symposium on Ubiquitous Intelligence and Autonomic Systems (UIAS 2013), Sorrento, Italy

"Gestion de contexte multi-échelle pour l'Internet des objets"

Journées francophones Mobilité et Ubiquité (UBIMOB 2014), Sophia Antipolis

"Projet INCOME : Infrastructure de gestion de COntexte Multi-Echelle pour l'Internet des Objets"

Conférence Francophone sur les Architectures Logicielles (CAL 2014), Paris

Contribution : "Models of Quality and Protection of Multiscalable Context Information"

INCOME Project Deliverable, Task 4.1 (2013)

Cloud Engineer & R&D Researcher

IMT Sud-Paris / CNRS

Oct. 2011 – Sept. 2017 | Evry, France

- **Cloud (2016-17):** Cloud infrastructure consolidation, datacenter relocation, documentation centralization.
- **PhD R&D (2011-14):** Designing IoT algorithms, data quality management (QoC) & Privacy. Java/Eclipse.

Software Development Engineer

TELECOM SudParis

Mar. 2011 – Sept. 2011 | France

- **European Project "CompatibleOne":** Development of the "pyOrbac" application (Python) and "xOrbac DSL" (XML/XSD) for unified security policy management.

INTERNATIONAL EXPERIENCE (VENEZUELA)

Project Manager

Tagua Center

Nov. 2004 – Sept. 2009 | Venezuela

- **Coordination:** Management of an internal team and service providers for administrative and reservation systems.
- **Full Cycle:** Needs analysis, specifications, planning, budgeting, and deployment.
- **Stack:** MS Project, Visual Basic, MySQL, PHP, HTML.

Solutions Analyst Designer

Zurich Insurance Company

Dec. 2000 – Nov. 2004 | Venezuela

- **AS400 / SAP Interfaces:** Design and development of the flow interface, deployed in several Latin American subsidiaries.
- **Bancassurance:** Technical project planning and steering, writing specifications, and coordinating external teams based in the Brazilian subsidiary.
- **DB Admin (SQL Server):** Administration, performance optimization, security management, and backups.

Early Experience

Univ. Nueva Esparta & Manapro

1998 – 2001 | Venezuela

- **Professor (2000-01):** Teaching "Software Development" for engineers (3rd year).
- **Analyst Developer (1998-00):** Dev VB/DB applications for banks and insurance. Quality audit.