# Sylvain **Leroy**

CTO, LEGACY/SOFTWARE MODERNIZATION ARCHITECT, PRODUCT/SQA MANAGER

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*"Innovation is the right balance between risk and conservatism"*

## Education

**NINJA SQUAD** *Geneva*

ANGULAR 2 TRAINING *Jan. 2017*

• Angular 2 and Typescript training

**INRIA, IRISA, University of Rennes 1.** *Rennes, France*

COMPILER, PERFORMANCE AND MICRO ARCHITECTURE, MASTER OF RESEARCH (RM2) PROGRAM *Jun. 2007 - 2004*

• Specialization in compilation technics to create source-to-source(transpiling) frameworks for performance optimisations

**IUT Lannion, University of Rennes 1.** *Lannion, France*

BACHELOR OF COMPUTER SCIENCES, *Jun. 2004 - 2002*

• C/C++ Software development course, requirements, team management.

## Skills

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|---|---|
| **Software skills** | Cleancode, Web Applications, CQRS/DDD/SOA/REST/Cloud Architectures, Microservices, Batches, MDA Modelers, Code ( and optimization, Compilers |
| **Mainframe experience** | **Cobol** (code review, code parsing and rewriting in another language), 3270 protocol and Mainframe screen revamping, C lightweight Mainframe knowledge (including CICS) |
| **Legacy Software migration** | Cloud Software migration (Monoliths), Test Automation, Refactoring technics, Source-to-source expert |
| **Software audit** | ISO 9126, ISO 25000, Balanced scorecard, CMMI, KPI, COCOMO2 |
| **Test Tools** | Selenium, Puppeteer, SoapUI, Spring Test, JMeter, Gatling, Cucumber, JBehave, JGiven, JUnit 4 and 5 , Mockito, Postma |
| **Quality Tools** | SonarQube, Squale, Kiuwan, Codacy, Klocwork, Coverity + opensource |
| **Cloud** | Terraform, Google Cloud (GCE, GKE, Pub/Sub, GCB, API), Amazon(S3, EC2, ECK, ECS, ELB, ECR, IAM) |
| **Team management** | Agile/Kanban, SAFE, Scrum, Waterfall |
| **Innovation** | Research promotion, Innovating ideas, Research project initiator |
| **Programming Languages** | Java, JavaScript, TypeScript, Groovy, former C/C++ developer, Delphi |
| **DevOps** | Docker, Varnish, Jenkins, Maven, Gradle, Kubernetes, Nexus, GitLab, GIT |
| **Databases** | MySQL/MariaDB, MongoDB, Elasticsearch, Neo4J, Sqlite, OrientDB, Cassandra, OpenTSDB, KairoDB, Oracle |
| **Web/UI** | Vue.JS (vuex, vue-router), React-Native, Thymeleaf, Angular 8+, Wicket |
| **Web/Middleware** | Spring Boot (Security, Web), CXF, Node.JS, Express, Loopback 3-4 |
| **Servers and Infrastructure** | Tomcat, Varnish,RabbitMQ, ActiveMQ, Apache2, JBOSS, HAProxy |
| **Web/DAO** | Spring Data, Spring JDBC, MyBatis, Hibernate, EhCache, JPA |
| **Machine Learning** | DeepLearning4j, Smile, Weka, KNime |
| **Languages** | French (Natural), English (C1), German (A2), Russian (A1), Italian(A1) |

## Experience

**SALT SA** *Lausanne, Switzerland*

SOLUTION ARCHITECT *Mars 2020 -*

• Maintainer of the (Legacy) Payment infrastructure
• Payment Service Provider : Datatrans
• LCM; Legacy software migration, Software Technology migration, automated testing
• Java 6/Open JPA -> Spring Boot/Data
• Play Fwk 2 -> Spring Boot/Thymeleaf
• GWT -> SPA/Vanilla JS
• Junit 5, Cucumber, Selenium

## Serial SA/ Mobilière

SENIOR SOFTWARE DEVELOPER

*September 2019 -*

- LCM; Legacy software migration, Software Technology migration, automated testing, **Software Craftmanship**
- Handled two software migrations (JBOSS 6.4 -> JBOSS 7.2, Primefaces, Java 6 -> 11).

## GENOMA SA, Esperite Group Affiliate

*Geneva, Switzerland*

CHIEF TECHNOLOGICAL OFFICER

*August 2019 - September 2019*

- IT Manager in charge of three departments (Genetic laboratory, BioInformatics Dept, IT Dept)
- Reorganization of the IT activities and product launch preparation.

## FAVEEO SA

*Lausanne, Switzerland*

CHIEF TECHNOLOGICAL OFFICER

*September 2018 - July 2019*

- **Stakeholder** on the Product vision, roadmap and strategy and technologies
- Design and development of an AI prediction system to detect viral newspaper articles (Java, Spring Boot, DeepLearning4j, Smile, Docker)
- Video generation from written newspaper article (Vue.js, Spring Boot, RabbitMQ; Docker, MongoDB, Elasticsearch, OpenNLP)
- Mail generation system using Node.JS, Java 8, Spring Boot and Mailchimp

## AZQORE SA 6 Credit Agricole

*Lausanne, Switzerland*

SENIOR SOFTWARE QUALITY MANAGER

*December 2017 - August 2018*

- Software quality and architecture auditor for 100+ developers (Cobol, Java)
- Mainframe and Mainframe middleware experience
    Cobol code quality, tooling and review
    Architectural and review of the Java middleware to interconnect Java webapps with the mainframe using 3270's protocol (Screen revamping)
- **Member of the Enterprise Architecture department**
- **Promotion of DevOps practices**, Software quality and cleancode
- Organizer of a **techlead community** inside the Bank

## SERIAL SA

*Geneva, Switzerland*

SOLUTION ARCHITECT, TECH LEAD

*January 2017 - November 2017*

- *SERIAL SA is a famous company of 30 years old in Switzerland, delivering IT services. Its activities are focused on Web, ECM, Mobile, BI, Security, and Software Engineering expert skills.*
- **1st Trimester 2017 - GHI**: **Software Quality Assessment and Performance testing**
  Java, AngularJS, JHipster, Gatling, JMeter, SonarQube, Maven, Bamboo
- **2nd Trimester 2017 - GSK Novartis**: **JEE Tech Lead**
  Technical review of the project, technical migration and Java expertise
  Docker, Jenkins, Oracle, Java, Javascript, JSP, W4 Business Engine, Tomcat, Apache, Gradle, JIRA, Bamboo
- **TechTalk**: **Speaker**
  Why developers should care about quality ?
- **HSBC Private Banking**: **Technical lead**
  member of the Middleware team **delivery assessment**, technical review, devops best practices evangelization, international environment and offshore teams (India,China)
  Spring / Javascript / Ansible / Maven / Apache Camel / SOA / REST

## METRIXWARE/TOCEA

STAKEHOLDER AND CTO METRIXWARE

- Technical director for several product lines : Mainframe product, Sofware Factorw product, DevOps product and Legacy Software migration products
    - As the technical director, I was involved in many different activities (coding, testing, specification, roadmap etc on various technologies)
- **2013-2016** - **Software Editor : DevOps Dashboard Solution** Solution of KPI and alert management for DevOps teams. It extracts data of their Software Factories and ALM Solutions.
- **Semester 2016** - **Automated Refactoring/Migration of a Financial Editor product** : **Fircosoft** Automated migration with Metrixware Refactoring framework of the main product of a french TOP 10 Software Editor.
- Mainframe and Mainframe middleware experience
    - Product owner of the Scort products that offers CICS / Screen middleware to plug Web and mobile apps on the mainframe
    - Technical direct of the Cobos products : Cobol IDE for the Z serie.
- **2014-2016** - **Senior Software Quality Auditor : Adminext/BearingPoint partnership** Main auditor for Software Quality assessment of public french administration and ministries
    - **Functional audit** : As an auditor, I had to review the quality of the documentation, specifications, the precision of the software implementation based on the requirements of the customer.
    - **Database/Scheme audit** : As an auditor, I had to review the quality of the database schema of different critical solutions according various best practices, 1-NF, 2-NF, 3-NF, data quality...
    - **Test Automation** : As an auditor, I had to review the test strategy, the test quality and the good usage of the TDD, BDD methodologies as well as the completeness of their tests
    - **Code quality** : As an SQA Expert, I had to select the appropriate tools to perform Code quality measures and technical debt diagnostic of the customer's software, and configure the quality profiles. Part of my work is to segregate the results to priorize and classify the issues according different qualimetry models as Sqale, ISO-9126...
    - **Continuous Delivery** : As a DevOps coach, I am performing assessments of the build and the whole toolchain to build the customer's solutions basing my approach on methodologies such like the Continuous Delivery book, Twelve Factors approach...

## TOCEA

COFOUNDER AND CTO TOCEA/ECHOES LABS

- *Tocea is an innovating company that provides refactoring source-to-source solutions to help the sofware editor to refurbish their legacy software in record time and budget*
- **Architect**, main developer for a solution of Code Quality analysis, competitor of SonarQube
- **Contributor to SonarQube ecosystem** : development of a Saas solution for SonarQube to provide worldwide Quality benchmarks
- **DevOps Coach** for SoftAtHome, 60 Developers, 20 QA, **2012-2014**
    - **Modernization of S@H Software Factory and build** : C/C++, Jenkins, CMake, Make, SonarQube, Coverity, Bugzilla, HP QC
    - **Test Automation advisor**, and Requirements analysis : Testlink, CPPUnit

## INRIA/IRISA

RESEARCH ENGINEER FOR SERENITEC(SEcurity, REfactoriNg, Internet, TEchnologies) RESEARCH PROJECT

- **Main developer** of a new technology for the detection of **quality**, reliability and **security** problems in Web Applications
- Technical Lead of a research team (2 Phd, 2 Engineers)
- Code Qualimetry tool development : C/C++, Java

# Extracurricular Activity

### Freelance
PERFORMANCE AUDIT FOR AN RESOURCE CRITICAL SYSTEM

*Switzerland*

*2020*

### Freelance
WRITING A FLEX TO ANGULAR 8 CONVERSION TOOL FOR ESN

*Switzerland*

*2020*

### Freelance
DESIGN AND BUILD OF A MOBILE APPLICATION FOR A STARTUP PROJECT
- Using React Native, backend Node.JS and Typescript

*Switzerland*

*2019*

### Freelance for Thalès AVS
SOFTARE FACTORY AND DEVOPS AUDIT
- Software SDLC and Factory audit for the Thalès AVS Group

*Switzerland*

*2019*

### Opensource Developer
SONARTSLINT, SONARESLINT PLUGIN
- Maintainer of the opensource SonarQube plugin SonarESLint.
- Contributor to some open-source projects.

*Switzerland*

*PRESENT*

HOBBIES
- Being a great father of 3 and a source of inspiration
- Hiking, Cycling, Cooking
- Learning Italian, Russian

# Honors & Awards

INTERNATIONAL

| | | |
|---|---|---|
| 2013 | **Finalist**, Innovation award from the French Ministry of the Industry (Créadev) | *Paris, France* |
| 2012 | **Finalist**, Innovation award from the French Ministry of the Industry (Emergence) | *Paris, France* |
| 2011 | **Laureate**, Phar Fund laureate | *Rennes* |

# Presentation

### Byoskill
KEY SPEAKER FOR THE SCALEUP 360 LEGACY IT EUROPE CONFERENCE
- Big bang or iterative evolution : my hands-on experience.

*Switzerland*

*2020*

### Byoskill
CLEANCODE TRAINER
- Coaching and training of new Cleancode trainers

*France*

*2019*

### OCTO
PRESENTER FOR OCTO
- Internal presentation : Why should we love our software ?

*Lausanne*

*July. 2017*

### SERIAL
PRESENTER FOR SERIAL
- Internal presentation : Why code quality does really matter ? How to boost your dev skills.

*Geneva*

*Apr. 2017*

### Metrixware : cross-company training
CLEANCODE TRAINER
- Cleancode course
- Design pattern course
- Automated testing course

*France*

*2014-2016*

**Tocea : cross-company training** *France*

Java/Spring trainer *2012*

- Java best practices
- SOA Best practices
- Java software optimizations

**AFDEL** *Paris*

Presenter for AFDEL/TECH IN France *Jul. 2012*

- Diminuer sa dette technique : stratégie de migration ... - TECH IN France

**INRIA Workshop** *Rennes*

Presenter for INRIA Workshop *Sep. 2007*

- Source-to-source technics for Java software optimizations

# Writing

**Blog Writer** *Switzerland*

Digital Transformation Refactoring *Jan 2017 -Now*

- Blog on various subjects : Code quality, refactoring, Enterprise Architecture, Digital Transformation
- `https://sylvainleroy.com`

**Main Writer** *France*

Software legacy: how to save them ? *Sep. 2016 - Dec. 2016*

- WhitePaper on Software legacy and how to handle the technical debt

**Main Writer** *France*

Software requirements : a complete guide and market study *Sep. 2015 - Nov. 2015*

- Exhaustive WhitePaper on Software requirement domain and requirement software market