Sylvain **Leroy**

SOLUTION ARCHITECT SPECIALIZED IN MIGRATION AND MODERNIZATION

Switzerland

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"Innovation is the right balance between risk and conservatism"

Key Points

- **Architect and consultant** specialized in cloud migration issues and legacy software modernization.

- **15+ years** involved in software migration projects, tools and methods.

- Solution Architect specialized in Migration and Software Modernization for Amazon Web Services.

- Multiple certifications in AWS technologies

- Founder of a company specialized in legacy software modernisation (Tocea) and Software quality

- Worked for several industries and sectors as public organizations, banks, insurances, ISV...

- Several times CTO (ISV, Startup, company registered in Netherlands stock market)

- Recognized for my ability to help IT teams to **organize and perform modernization of their legacy software**.

- Coach and tutor in various IT domains (Software Craftmanship, Cleancode, Software programming)

Education

AWS SOLUTION ARCHITECT ASSOCIATE CERTIFICATION	*Online*
PEARSON	*2023*
AWS SYSOPS ASSOCIATE CERTIFICATION	*Online*
PEARSON	*2023*
INTRODUCTION TO IBMI/RPG LANGUAGE	*Online*
METRIXWARE	*Jan 2021*
ANGULAR 2 TRAINING	*Geneve*
NINJA SQUAD	*Jan 2017*
INTRODUCTION TO COBOL AND 3270	*Nanterre*
METRIXWARE	*2015*
STATIC ANALYSIS AND REFACTORING TOOLS, RESEARCH PROJECT	*Rennes*
INRIA/IRISA	*Jun 2007-2010*
PERFORMANCE AND MICRO ARCHITECTURE, MASTER'S PROGRAM	*Rennes*
UNIVERSITY OF RENNES 1	*Sep 2004-Jun 2007*
BACHELOR OF COMPUTER SCIENCES	*Rennes*
UNIVERSITY OF RENNES 1	*Sep 2002-Jun 2004*

Experience

AMAZON WEB SERVICES

Zurich, Switzerland

SPECIALIST SOLUTION ARCHITECT IN MIGRATION AND MODERNIZATION

January 2023 - Present

CONTEXT
- *Amazon Web Service is the largest and most mature Cloud Service Provider.*
- Part of a team of specialists in charge of data center migrations and legacy software modernization
- Activity on DACH (Austria, Germany, Switzerland, East Europa, Dubai)

ACHIEVEMENTS
- Data center migration for a Swiss bank (in progress)

TECHNOLOGIES
- Amazon Web Services technologies
- Various IT environments

LzLabs GMBH

Zurich, Switzerland

PRODUCT OWNER / SOLUTION ARCHITECT

Septembre. 2021 - Dec. 2022

CONTEXT
- *tLzLabs we help you modernise your mainframe applications in your preferred environment.*
- Flat hierarchy environment
- 60+ developers
- Customer facing position: requirements collect, trainings, workshops
- ISV specialized in Mainframe Modernization with unique technologies
- In charge of 3 products : an Mainframe IDE, a test automation software to help Mainframe migrations and a Mainframe migration tool
- Handled a team of specialists of 3 people
- *Architect* Responsible of the design, architecture and evolution of 3 products
- *Product owner* : Business analysis, customer first advocate, product design

ACHIEVEMENTS
- Delivered several releases of th Workbench IDE in one year
- Handled the product discovery and the development of a new Mainframe migration product
- Assisted two customers to migrate from their Mainframe
- Handled the replacement and the transition to a new development team

TECHNOLOGIES
- LzLabs SDM
- Mainframe technologies : Cobol, JCL
- *SCA*: Java, Compiler technologies (ANTLR, Regexp), JUnit, XML, Maven
- *Workbench*: Eclipse technologies (SWT, Java), HTTP Client, JUnit, Picocli, Maven
- *Workbench Server*: Spring Boot, Spring web, Spring authentication
- *LzTestManager*: GWT/ Spring / Spring Boot + Mainframe technologies

SOLUTION ARCHITECT AND SOFTWARE MODERNIZATION

Switzerland

CONSULTANT

September 20179 - June 2021

Keyteo - Assura

Technical leader

CONTEXT
- 100+ staff project
- Team 15 people, 1 architects, 2 Techleads, devs / analysts
- Flat hierarchy environment
- Core ERP migration from AS400 to Adcubum Syrius solution

ACHIEVEMENTS
- Functional/Technical specifications, Architecture and Software Design
- Software quality control and best practices
- Agile/Scrum environment

TECHNOLOGIES
- *TIBCO* : REST/SOAP environment, Java language

SALT SA

Solution Architect

CONTEXT
- IT Team 30 people, 5 architects, 25 devs / analysts
- Flat hierarchy environment
- Near-shoring in France (15 people)
- 4 Backends, 2 UI had to be migrated from Spring 2/Java 5 to Spring 5, Java 11 using Hexagonal Architecture
- Central payment system : 5 software, one 3rd party provider (Datatrans)
- 3 allocated people + Project manager

ACHIEVEMENTS
- Prepare a technological roadmap and execute the modernization of the Payment system
- One year project, to perform much everything on our own; (automated tests, non-regression, software modernization plus 1 UI rebuilt from scratch)
- Reverse engineering of the legacy system to allow later improvements
- Coached and trained junior developers.

TECHNOLOGIES
- *Java Backend migration* : Java 6/Open JPA -> Java 11/Spring Boot/Data
- *Frontend/Backend migration* : Groovy/Play migration : Play Framework -> Spring Boot/MVC/Thymeleaf
- *Frontend migration* : GWT -> SPA/Typescript/Webpack/JQuery
- *Automated testing* : Junit 5, Cucumber, Selenium

Serial SA/ Mobilière

Software Modernization Architect

CONTEXT
- Fixed-term employment contract
- Project Migration of 3 Legacy JBOSS/JSF Applications to Jboss 7.2
- Project LCM on existing systems
- Large organization in SAFE: 200 people
- Totally new team dedicated to this project: 7 people
- Time-constrained modernization
- Reverse-engineering and technology architecture impact analysis

ACHIEVEMENTS
- Migration, modernization, and QA performed on time and budget
- Excellent feedback from the stakeholders
- Frequent architecture discussions with the local architecture team

TECHNOLOGIES
- *Java Backend migration*: JBOSS 6.4->7.2, Java 6 to Java 11 Migration, Spring upgrade, Hibernate Upgrade and JBOSS Drools upgrade
- *Frontend migration*: Replace Primefaces with the the latest version
- *Java Backend migration*: Java 8 to Java 11 Migration, Spring upgrade, Hibernate Upgrade and JBOSS Drools upgrade
- *Automated testing*: Junit 4, Cucumber
- *Methodology*: SAFE, SCRUM

FAVEEO SA

CHIEF TECHNOLOGICAL OFFICER

CONTEXT
- Small Organization Environment
- Personal challenge to bring innovation
- Principal Architect, Lead Dev
- OKR/KPI oriented organization with strong budget and business incentives
- Multi-cultural environement

ACHIEVEMENTS
- `https://essentials.news`
- `https://sylvainleroy.com/upload/videoscript-7fc1ccef88.mp4`
- Architecture Design and development of an innovative **AI prediction system** to detect future viral newspaper articles
- Architecture Design and development of an innovative system to generate Video using newspaper articles and AI
- Architecture Design an Automated AI generated mailing using Mailchimp, Elasticsearch and Java 11
- Achieved the technological and innovation goals for the company.

TECHNOLOGIES
- Event Architecture, Pipeline, Messaging using RabbitMQ
- Java, Spring Boot, DeepLearning4j, Smile, Docker
- Vue.js, Spring Boot, RabbitMQ; Docker, MongoDB, Elasticsearch, OpenNLP
- Pure Cloud Player : AWS Environment
- Mail generation system using Node.JS, Java 8, Spring Boot and Mailchimp

AZQORE SA / CREDIT AGRICOLE

SOFTWARE QUALITY MANAGER, SOFTWARE MODERNIZATION ARCHITECT

CONTEXT
- Hired as Software quality and architecture auditor to control every delivery (Cobol, Java, Mobile...)
- Worked under the Principal Architect and inside the Enterprise Architecture team: 5 people
- Unofficially requested as Solution / Modernization Architect on several projects
- Two different cultures : IBMz IT and Digital IT
- Inshore, nearshore(France), offshore(Singapour) developments
- Strict ISO process for Document and communications

ACHIEVEMENTS
- Architect role on the integration project of a Cobol middleware with Digital ecosystem.
- Intervened as a Solution Architect on critical production issues
- Mission with the Application Management to define and broadcast Application monitoring best practices
- Creation of a TechLead community inside the Bank
- Participated on some GDPR questions especially about system reverse engineering to secure customer data

TECHNOLOGIES
- IBMz, Microfocus, IBM Websphere, IBM MQ
- Enterprise Architecture ARIS, Quality tools and Software Factory
- WSO2, ManageEngine AppManager, Dynatrace
- Java (JSF, Spring), Angular…

SERIAL SA

SOLUTION ARCHITECT, TECH LEAD

CONTEXT
* 3 Projects, two offsite, one onsite
* Generally in Scrum/Agile teams
* Architect role directly with the GSK/Novartis Upper Architecture management
* Solution Architect / Delivery control in a complex delivery environment for HSBC
* As Product Owners of the Bank Middleware system, really high stability and performance expected from the Architecture team
* Offshore with India and China : architecture, coaching, delivery, review, first level of technical support

ACHIEVEMENTS
* *1st Trimester 2017 - GHI*: Software Quality Assessment and Performance testing
* *2nd Trimester 2017 - GSK Novartis*: Modernization of the Drug Packaging system
* *TechTalk*: Speaker: "Why developers should care about quality ?"
* *HSBC Private Banking*: member of the Architecture/Middleware team: performed several deliveries and go live in a multicultural / distributed environment

TECHNOLOGIES
* *GHI*: Spring and Angular technologies, Okta authentication, JMeter and Gatling
* *GSK*: W4 Business engine, Docker, Jenkins, Oracle, Java, Javascript, JSP, Tomcat, Apache, Gradle, JIRA, Bamboo
* *HSBC*: Avaloq, Ansible, Jenkins, Spring, REST, SOAP, MQ, WebSphere

METRIXWARE/TOCEA

STAKEHOLDER AND CTO

CONTEXT
* Mergers between two companies (20 + 15 staff)
* Three sites : Paris, Rennes, Montreal
* Two very different cultures : 25 years, 50+ years
* Technology director for several product lines : Mainframe product, Software Factory product, DevOps product and Legacy Software migration products
* Principal Consultant for Key Accounts
* 50+ Active customer references France and International: insurances, banks, administrations, industries

ACHIEVEMENTS
* Creation of a profitable activity around Software Modernization consulting
* Built the renown of the company over Software Factory and Devops Expertise
* Increased the company renown for its Technology/Architecture Roadmap and Software Assessment
* Launched successfuly an KPI/DevOps Dashboard solution to track Devops initiative ROI
* Acquired a knowledge of the IBMz and IBMi challenges and integration issues with the Digital ecosystem
* *Software Modernization Project* Modernization program of the Swift Transfer Product for Fircosoft, Accuity
* *Software Modernization Project* Modernization program and transformation of the C/C++ Indexation Engine for SoLocal/Pages Jaunes
* *Software Modernization Project* Modernization program of 7 applications for INSEE
* *Software Modernization Project* Modernization program of core Logistic Product for SIGMA informatique
* *Software Modernization Project* Modernization program of the Orange's Webmail
* *Software Modernization Assessment* Architecture and Technology Roadmap for DGAC ministry
* *Software Modernization Assessment* State Council
* *Software Quality Assessment* Economy and Budget Ministry
* *Software Modernization Assessment* Canadian Promutuel
* *Software Quality Assessment and Postmortem* Delegated Software Quality Expert for the French Ministry of Environment
* *Digital Transformation Roadmap for AXA software built over IBMz* AXA
* *Software Modernization Assessment* C/C++ SEPA Payment system for Cedricom
* *IT Organization and Software Assessment* Campus France

TECHNOLOGIES
* Proprietary Modernization framework and tools
* Eclipse Modeling and Framework
* Java ecosystem

TOCEA

Cofounder and CTO TOCEA/Echoes Labs

Context
- *Tocea is an innovating company that provides refactoring source-to-source solutions to help the software editor to refurbish their legacy software in record time and budget*
- Won the National Emerging Industry Innovation price in 2011 and 2012
- Built a team from 0 to 20, created a local branch in Montreal
- Technology director for two product lines : Software Quality Product and Software modernization product
- Principal Consultant for Key Accounts
- 50+ Active customer references France and International: insurances, banks, administrations, industries

Achievements
- *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 company, 60 Developers, 20 QA
     Modernization of S@H Software Factory and build
     Test Automation coach, and Requirements analysis

Technologies
- Proprietary Modernization framework and tools
- Eclipse Modeling and Framework
- Java ecosystem

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

Skills

Cloud Architect

Google Cloud	GCE, GKE, Pub/Sub, GCB, API
Amazon Web Services	Solution Architect, SysOps, DevOps

Mainframe and Legacy

Legacy Software migration	Cloud Software migration (Monoliths), Test Automation, 12 Factors, Source-to-source expert
Mainframe experience	**Cobol**, **JCL**, (Code review), Java - Mainframe Integration (3270, Messaging)

Recent skills

Programming Languages	Java 8,11+, JavaScript, TypeScript, Groovy, Bash
Web/UI	Vue.JS (vuex, vue-router), Angular 8+, GWT, EJS
Frameworks	Spring Boot, Spring 5, JPA, Hibernate, Nuxt.JS, Node.JS, Express
Test Tools	Selenium, SoapUI, Cucumber, JUnit 5/4, Mockito, Postman
Software Architecture	Cleancode, CQRS, DDD, Hexa/Clean Architectures, Microservices, Archimate
Databases	Oracle, PostgreSQL
Platform services	Tomcat, Apache2, HAProxy

Experience

Programming Languages	C/C++ (5 years), PHP (1 year), Kotlin(beginner)
Web/UI	React-Native, Thymeleaf,JSF, Wicket
Frameworks	Struts, Loopback 3-4
Machine Learning	DeepLearning4j, Smile, Weka, KNime
Test Tools	JMeter, Gatling
Cloud	Terraform, Amazon(S3, EC2, ECK, ECS, ELB, ECR, IAM)
SAAS Services	DataTrans, Google API, Mailchimp, Mailjet, Auth0, Stripe
Databases	MySQL/MariaDB, MongoDB, Elasticsearch, Neo4J, Sqlite, Oracle
Platform services	Varnish,RabbitMQ, ActiveMQ, JBOSS Keycloak, JBOSS

Soft skills

Team management	20+ IT staff management, Product Owner, Roadmap, Agile/Kanban, SAFE, Scrum, Waterfall
Software Quality Assurance	ISO 9126, ISO 25000, Balanced scorecard, CMMI, KPI, COCOMO2
Quality Tools	SonarQube, Squale, Kiuwan, Codacy, Klocwork, Coverity + opensource
Innovation	Research promotion, Innovating ideas, Research project initiator
Languages	French (Natural), English (C1), German (A2), Russian (A1), Italian(Beginner)

Extracurricular Activity

`https://salaire-en-suisse.ch` *Switzerland*
Build a demo project for Nuxt;JS *2021*

- Using GCP, Nuxt.JS, Vue, Mongo

Freelance *France, Germany, Switzerland*
Consultancy *2020-2022*

- Trainer (Gradle, JUnit, ...)
- Performance Audit for a Critical System of a Saas company
- *Software Modernization Project* Modernization program of Logistic Product for Nexter Military Equipment
- Design and development of an automated Adobe FLEX to Angular 8/9 conversion tool
- Design and development of an automated RPG4 to RPG 8 conversion tool
- Java 5 -> Java 11 Software Modernization for a Land Defense Leader in France and Europe

Freelance *Switzerland*
Design and build of a Mobile Application for a Startup project *2019*

- Using React Native, backend Node.JS and Typescript

Freelance for Thalès AVS *France*
Softare Factory and Devops Audit *2019*

- Software SDLC and Factory audit for the Thalès AVS Group

Opensource Developer

SONARTSLINT, SONARESLINT PLUGIN

PRESENT

- Maintainer of the opensource SonarQube plugin SonarESLint.
- Contributor to some open-source projects.

Hobbies

- Being a great father of 3 and an source of inspiration
- Hiking, Cycling, Cooking
- Relic hunter
- 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

Switzerland

KEY SPEAKER FOR THE SCALEUP 360 LEGACY IT EUROPE CONFERENCE

2020

- Big bang or iterative evolution : my hands-on experience.

Byoskill

France

CLEANCODE TRAINER

2019

- Coaching and training of new Cleancode trainers

OCTO

Lausanne

PRESENTER FOR OCTO

July. 2017

- Internal presentation : Why should we love our software ?

SERIAL

Geneva

PRESENTER FOR SERIAL

Apr. 2017

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

Metrixware : cross-company training

France

CLEANCODE TRAINER

2014-2016

- Cleancode course
- Design pattern course
- Automated testing course

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

<div style="float:right">France</div>

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

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

Main Writer

<div style="float:right">France</div>

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

- Exhaustive WhitePaper on Software requirement domain and requirement software market