

# Julien Bellion

CLOUD SOFTWARE ARCHITECT

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Architecture / Conception / Development / Analysis / Agile

## Professional summary

Software (Micro-services / Java / Spring / Datas) and cloud (AWS, Azure) architectures

Agile minded, problem solver

20+ years of application design and software development

## Professional experience

### Banque Nationale du Canada

SOFTWARE ARCHITECT - REMOTE

Montréal, Québec, Canada

November 2022 - Today

#### Asset management

SOFTWARE DESIGNER

November 2022 - Today

Software design for account management, application modernization and migration to AWS cloud. Follow-up, design and development team support

Java / Spring boot / AWS / Kubernetes / Istio / Okta

### Alithya (CSNA)

SOFTWARE ARCHITECT - REMOTE

Montréal, Québec, Canada

March 2021 - October 2022

The Digital Solutions Center of Alithya specializes in the transformation and modernization of systems towards new technologies based on industry best market practices in the field of digital technologies.

#### Alithya - Bullhubs

CLOUD ARCHITECT

Canada

Bullhorn - Corporate site interconnection system : Publication of job offers and processing of applications The application deployed on AWS needs to be redesigned to improve its performance and limit the associated costs.

- ✓ Remediation of development environments to allow the resumption of developments
- ✓ Realization of an inventory of the application
- ✓ Definition of a roadmap for improvements: AWS best practices, cost reduction, monitoring capabilities, governance
- ✓ Created a Python serverless stack with CDK deployment

AWS / CDK / S3 / SQS / EC2 / Lambda / Java / Python / Spring boot

#### AGA - SARAGA

SOLUTION ARCHITECT

Canada

December 2021 - April 2022

Redesign of the insurance management system Occasional support on architecture issues

- ✓ Studies and costing of development options
- ✓ Relevance analysis

## Croesus - UMA

AWS ARCHITECT

Canada

December 2021 - April 2022

*Transition from a monolithic system to hosted micro-services* AWS Support and guidance

- ✓ Micro-services best practises compliance
- ✓ AWS services guidance
- ✓ Automated deployment with CDK / C#
- ✓ Exchange interfaces specifications (API, files format)

S3 / SNS / EKS / DocumentDB / CDK / .Net

## Desjardins - EMS - ORM

TECH LEAD

Canada

March 2021 - November 2021

*Evolution of the security measures (EMS) / ORM* EMS: Securing Desjardins members' personal data by masking data or limiting access. ORM: Support for Camunda / Spring Boot development efforts

- ✓ Technical conception of securization solutions
- ✓ Setting up the project
- ✓ Code review and deployments
- ✓ Technical support to developers

Java / Spring / Spring boot / Weblogic / Camunda

## CGI

SOFTWARE ARCHITECT / SENIOR JAVA CONSULTANT

Shawinigan, Québec, Canada

August 2017 - February 2021

Shawinigan CGI center of excellence provides digital transformation and innovation services worldwide.

## Total - Track & Trace

SOFTWARE ARCHITECT

France

November 2020 - March 2021

*The Track & Trace application aims to track fuel deliveries in deployed countries by displaying them in real time on a map.* Passage into production of the application initially developed as a prototype

- ✓ Global analysis of the situation to identify potential risks related to knowledge transfer
- ✓ Technical support to the development team

Microservices / Java/Quarkus / Azure DevOps / Kubernetes / PostgreSQL / Azure DataFactory / React

## Total - MSA

SOFTWARE ARCHITECT

France

April 2019 - March 2021

*The MSA application serves as a link between different critical applications of the company. Its implementation via microservices facilitates scalability by allowing the launch of specific domains on demand. It is part of a general migration from Siebel CRM to Salesforce.* Key resource on architecture topics

- ✓ Software architecture design
- ✓ API design
- ✓ Relationship management between technical partners
- ✓ Technical support to developers
- ✓ Implementation of deployment rules, builds and Sonar gates
- ✓ Code reviews
- ✓ Migration lead : Synchronized reports between teams, Cross analysis of migration tests, Automation scripts development

Java / Spring boot / Azure DevOps / Azure ServiceBus / Kubernetes / Azure SQL / Python

## CGI - RXP360

SOFTWARE ARCHITECT

France

August 2018 - June 2019

*The RXP 360 application is a complete management solution for the retail industry. The POS module covers the management of payment terminals with a configurable data model.* Architecture support

- ✓ Design module application architecture: Decoupling solution based on Kafka messages, Dynamic model and meta-model management
- ✓ Implemented solutions for unit testing and quality assurance: volatile test containers, mock server for distributed calls
- ✓ Wrote technical specifications
- ✓ Developed proof on concept
- ✓ Technical support to project developers
- ✓ Developed a configuration generator (Python)

Java / Spring boot / CouchBase / Kafka / Python

## BNC - TPVI

SENIOR JAVA DEVELOPER

Canada

September 2017 - August 2018

The TPVI application allows the national bank's partners to open banking products. The project consisted of a structural redesign of BNC's POS-I application.

- ✓ Migrated asynchronous EAI services to synchronous SOA calls
- ✓ Integrated REST services

Java / Websphere / Oracle

## Pass Technologie

JAVA/JEE/DATA ENGINEER - REMOTE

Paris, France

January 2009 - June 2017

PASS-TECH is specialized in free software in different domains: education, culture and architecture

## Région Provence Alpes Côte-d'Azur - Corrélyce Atrium

SOFTWARE ARCHITECT

France

January 2009 - June 2017

Started in 2007, Corrélyce is a Java/J2EE application now integrated into the Digital Workspace Atrium. It references 196 resources offered by 49 publishers. Public schools in the region — 167 at present for about 200,000 students and teachers — can manage their subscriptions and assign users to them. The internal search engine provides access to an in-depth faceted search, for resources that allow it, a so-called granular search — i.e., links within the resource — by querying external search services. User access is facilitated by a CAS SSO. This code base published under the GPL license has been reused for various projects, both internally and for external platforms (Courdecoll3, Coréprim). Conception, management and development

- ✓ Managed the project in Agile mode (Jira), conducted studies, and wrote specifications
- ✓ Developed new features (Spring, Hibernate, Eclipse, Git, OpenLDAP)
- ✓ Graphical integration, adaptive interface (Bootstrap, jQuery)
- ✓ Integration tests and updates of Linux servers (Debian)
- ✓ Switching from an internal indexing based on Compass to an external Solr engine
- ✓ Migrated database system from MySQL to PostgreSQL
- ✓ Corrective and evolutionary maintenance

Java / Spring / Struts / Hibernate / Tomcat / OpenLDAP / PostgreSQL / Solr / Bootstrap / Debian

## Ministère de l'Éducation Nationale - Resource Access Manager - GAR

PYTHON / XML DESIGNER / DEVELOPER

France

November 2016 - January 2017

The RAM project consisted of populating the publishers' digital resources database by collecting data from the reported OAI and scoLOMFR repositories and ensuring the quality of the collected data. Design, analysis, development

- ✓ Updated scoLOMFR format in collaboration with French Ministry of National Education
- ✓ Performed technical analysis and participated in technical consultation meetings with the various project stakeholders
- ✓ Developed the automatic data collection solution (Java, Hibernate, PostgreSQL)
- ✓ Developed a scoLOMFR indexation module for MOAI server (Python, Bash)
- ✓ Adapted and implemented a test OAI warehouse (Python)

Java / Python / Bash / PostgreSQL

## Réseau Canopé - scoLOMFR 2.0

XML/XSD DESIGNER

Paris, France

September 2015 - February 2016

The scoLOMFR schema is used as a reference for the description of educational resources for the Ministry of Education projects. XSD scoLOMFR 2.0 update

- ✓ Updated the XML schema
- ✓ Developed Bash scripts
- ✓ Ensured the transfer of skills

XML / XSD / Bash

## Région Rhône-Alpes - eLycée Digital Workspace Catalog

France

SOFTWARE ARCHITECT / PROJECT MANAGER

2011 - 2013

*This project is the first resource catalog based on the Correlyce code to have been integrated into a regional Digital Workspace. Numerous evolutions have been integrated and then transferred to Correlyce Atrium since 2013. Design, development, project management*

- ✓ Ensured the follow-up of the project
- ✓ Modularized the application to facilitate its reuse
- ✓ Integrated the Corédu resources catalog in scoLOMFR format
- ✓ Switched from lomFr to scoLOMFR format
- ✓ Developed the ScoLomfrPad tool (GWT) allowing the online edition of records in scoLOMFR format
- ✓ Externalized the user directory by using a dedicated API

Java / Spring / Struts / Hibernate / Tomcat / OpenLDAP / PostgreSQL / Solr / GWT

## Scérén - Canal Scérén

France

SENIOR JAVA DEVELOPER

2010 - 2011

*Based on Liferay, Canal Scérén gives CRDPs the possibility to create a customizable portal. Correlyce has been integrated in the form of specific search portlets. Portlets development*

- ✓ Performed development with Java/J2EE
- ✓ Integrated Liferay portlets

Java / Spring / Struts / Hibernate / Compass / MySQL / OpenLDAP / Liferay

## Scérén / Numéribase - Rural Digital Schools

Poitiers, France

ANALYST / SENIOR JAVA DEVELOPER

2009 - 2010

*This project aimed to give 5000 schools the possibility to buy digital resources with a predefined budget. The solution implemented was based on the Correlyce code for resource management and indexing. Correlyce software adaptation*

- ✓ Performed the development with Java/J2EE of the shopping cart system with capped amount
- ✓ Integrated the graphic chart

Java / Spring / Struts / Hibernate / Compass / Tomcat / CAS

## Convergence applications

Nantes, France

ACTES-OFFICE PRODUCT MANAGER

2005 - 2008

Convergence Applications owns two main products deux produits principaux for French public authorities : Post-Office, a mail management system and Actes-Office, a deliberation management application allowing the preparation of municipal councils and the restitution of voted decisions. This product is used by about a hundred municipalities in France.

### Actes-Office

PRODUCT MANAGER / DESIGNER

2005 - 2008

*Deliberation management system for local authorities Follow-up, design and development*

- ✓ Ensured the follow-up of the project, the analysis, and the costing of the evolution requests
- ✓ Designed and developed (JSP / Servlets, Tomcat, Oracle, PostgreSQL)
- ✓ Provided second level technical support
- ✓ Ensured the design and development of a legal control application (secure transfer of acts) module

Java / JSP / Servlets / Tomcat / Oracle / PostgreSQL / XML / XSLT

### SAAS platform

PRODUCT MANAGER / DESIGNER

2007 - 2008

*The purpose of this platform was to put the two solutions — Post-Office and Actes-Office — online to simplify their deployment to communities with reduced needs. Analysis, design*

- ✓ Defined and monitored the platform
- ✓ Established the requirements specifications
- ✓ Performed integration tests

Debian / Tomcat / PostgreSQL

## Internal development platform

MANAGER

2006 - 2008

Previously, the only tool used for development was a Microsoft Visual SourceSafe server. To facilitate the development and testing work, a virtualized server was installed. Installation, configuration

- ✓ Installed and configured the server (Debian, Xen)
- ✓ Configured virtual machines
- ✓ Configured development tools (Gforge, Mediawiki)

Debian / Xen / Gforge / Mediawiki

## Citizen Relations Management

ANALYST / DESIGNER

April 2005 - December 2005

Application for citizen relationship management aimed at unifying a public community's communication channels. Analysis, specifications writing, modeling

Java / EJB / JBoss

## Team Partners

Nantes, France

SOFTWARE ENGINEER

2001 - 2004

Team Partners is a french IT services company employing 900 people in 2001.

## Régional (Air France) - Info center

Nantes

SOFTWARE ENGINEER

November 2002 - August 2004

To facilitate the implementation of an info center within the company, a migration to web technologies was undertaken for the monitoring and reporting applications. Analysis, development

- ✓ Migrated a reporting application to intranet
- ✓ Ensured the corrective maintenance of the flight management application

.Net / ASP / Visual Basic / SQL Server

## Cegetel - Printers management

Nantes

SOFTWARE ENGINEER

September 2002 - October 2002

Printers management reporting tool Analysis, development

Visual Basic / Windows NT 4

## ST Microelectronics - Ad-hoc assignment

Tours

SOFTWARE ENGINEER

March 2002 - May 2002

Corrective maintenance of internal applications (Visual Basic) Carried out the analysis and development of an intranet application for consulting the product genealogy (Java, JSP, Oracle, Tomcat): the complexity of the manufacturing process of electronic components is difficult to apprehend without an adapted tool.

Visual Basic / Java / JSP / Tomcat / Oracle

## SNCF - Documentary Intranet

Nantes, France

SOFTWARE ENGINEER

December 2001 - February 2002

Création d'un site intranet documentaire Analysis, development

ASP / SQL Server

## Régional (Air France) - Flights management

Nantes

SOFTWARE ENGINEER

January 2001 - November 2001

This period corresponded to the merger of three airlines into one named Régional. Responsible for the flight management application that allowed operational teams to track and plan the company's daily flights

- ✓ Stabilized the application to allow its scalability in the face of the increase of flights and teams
- ✓ Ensured the evolutionary maintenance (Visual Basic, SQL Server, Crystal Reports)
- ✓ Analyzed and developed intranet tools (ASP, SQL Server)

Visual Basic / SQL Server

ADIS is a company specialized in labeling and barcode optical reading systems.

### Transports Delanchy - Automatic dispatch system

La Gravelle

PROGRAMMER - ANALYST

February 1999 - December 2000

Transports Delanchy specializes in transporting seafood products. The goal of the project was to develop a system that automatically dispatched products picked up from producers, and daily orders placed by end customers throughout France, while considering customer priority criteria and transport times within the distribution network. Front-end and back-end development

- ✓ Front-end development (Java, Swing)
- ✓ Conception and development of the automatic dispatch logic (Oracle PL/SQL)

Java / Oracle

### Brandt Cooking - Labeling and production monitoring

Aizenay

PROGRAMMER - ANALYST

October 1997 - January 1999

Application for labeling and monitoring microwave oven production lines Conception and development of the application according to the series being produced, with label customization and offline degraded mode.

Visual Basic / SQL Server

### Cholet Basket - Ticketing system

Cholet

PROGRAMMER - ANALYST

January 1997 - September 1997

Professionnal basket-ball team ticketing application Analyzed, designed, and developed a ticketing application with seating plan and different sales modes (visual selection, quick sale, advance printing).

Windev

### Lycée Sainte Marie - Access management

Cholet

PROGRAMMER - ANALYST

November 1996 - December 1996

Access management system of a high school. Analyzed, developed

Windev

## Certifications

|                  |  |
|------------------|--|
| <b>Microsoft</b> | 2022 - Microsoft Certified: Azure Fundamentals                 |
| <b>AWS</b>       | 2020 - AWS Certified Solutions Architect – Professional        |
| <b>AWS</b>       | 2020 - AWS Certified Solutions Architect – Associate           |
| <b>AWS</b>       | 2020 - AWS Certified Cloud Practitioner                        |
| <b>CGI</b>       | 2019 - RCDA: Risk- and Cost-Driven Architecture - Practitioner |

## Technologies

|                            |  |
|----------------------------|--|
| <b>Cloud</b>               | AWS (S3, SNS, SQS, EC2, EKS, Lambda, DocumentDB), Azure (SQL, DevOps, ServiceBus), Kubernetes, Kafka |
| <b>Java, Spring</b>        | Java 1.1.x - 11, Spring Stack (Boot, Security, Data, ...), Hibernate                                 |
| <b>Python</b>              | Flask, AWS Cdk, Pandas, ...  |
| <b>No-SQL</b>              | CouchBase, DocumentDB, Solr  |
| <b>SQL</b>                 | Azure SQL, PostgreSQL, MySQL, Oracle   |
| <b>HTML, JS, Front-end</b> | Bootstrap, Struts, JSP, GWT  |

## School curriculum & Training

**Master Information technology / track Distributed software and systems architecture**

FACULTÉ DES SCIENCES ET TECHNIQUES

Equivalence recognized in Quebec: Master - Computer Science

**DEST Information technology - Night classes**

CNAM

2005

Nantes, France

1999 - 2004

Nantes, France

**BTS Management information systems**

LPT ST PIERRE – LA JOLIVERIE

1996

Nantes, France

**C - Scientific bachelor's degree**

LYCÉE EUROPE ROBERT SCHUMAN

1992

Cholet, France