

Technical leader and software architect position

Design and implementation of large IT applications

Experience

May 2008 present	Lead architect at <i>LesFurets.com</i>, Paris.
September 2004 April 2008	Software architect at Prima Solutions, Paris.
February 2003 August 2004	Senior software engineer at ILOG, Paris. Member of the Enterprise Integration development team of the JRules product. JRules is a rules development suite composed of an engine and a development kit.
December 2000 February 2003	Software engineer at ILOG, Paris. Member of the development team of the JViews Component Suite . JViews is a set of graphical components on top of Java2D including charts, Gantt chart and grapher with advanced graph layout capabilities.

LesFurets.com, Paris, France 2008 - present

LesFurets.com is the French leader of internet insurance comparison. The company is composed of 100 employees, including 35 ingenieers. The company is member of BGL Group since November 2010.

- **Designed and developed a insurance comparison web site *LesFurets.com***
LesFurets.com allows to compare and subscribe insurance from 100 companies and more than 1000 products for car, bike, health, house and loan. The website is used by 4 millions customers and deliver 3 millions quotes each year.
- **Created and developed the dOOv framework.**
dOOv is an open source library that allows to write **type safe business rules** in Java or TypeScript DSL (Domain Specific Language). Business rules are auditables in each production environnements by the business users in natural langage.
- **Methodology and developement process improvement**
Introduced modular developement based on Java services, Apache Maven components, data model governance and continuous delivery process that enable daily delivery of *LesFurets.com*.

Contributions by order

July 2018 present	Lead front application architecture update based on React/TypeScript : migrate 3000 front business rules using DSL technologies and a DDD (Domain Driven Design) approach. Rewrite in place the customer funnels and finally migrate all the business logic to the new React stack using a <u>dOOv</u> DSL.
December 2017 June 2018	Lead the data encryption strategy: identify users PII (Personally Identifiable Information) of the data-flow and encrypt PII using AES-256 at the application level. Extract all the secrets of the continuous delivery pipeline and use Hashicorp Vault to distribute them in the staging and production environnements.
January 2014 September 2017	Design and implement a new storage system based on the Cassandra NoSQL distributed database and lambda architecture concepts. Fully rearchitecture the data-flow with micro-batch to allows real time data monitoring, BI and data history access of 3 millions quotes per year.
January 2012 December 2013	Full redesign of the <i>LesFurets.com</i> client architecture based on MDD (Model Driven Developpement). The new frontend UI use a runtime modeling approach, code to code generation and annotation processing to enforce code reuse and readable code patterns.
April 2011 September 2011	Implements a new design for the branded web site <i>LesFurets.com</i> launch. The web site is based on the architecture of <i>Assuremieux.com</i> .
November 2010	BGL Group acquires Courtanet/Assuremieux for 10 million euros.

June 2010 April 2011	<p><i>CreditMieux.com</i> design and developement: loan comparaison service based on existing software factory and frameworks with a new domain model.</p> <p>Introduce developement patterns with code generation using Java annotations (data access, runtime configuration and integration tests).</p>
March 2010 May 2010	<p>AssureMieux mobile for iPhone: Mobile use case study for <i>AssureMieux.com</i>, graphical design, iPhone SDK application and services architecture.</p>
February 2009 February 2010	<p><i>AssureMieux.com</i>: Improve the original service platform of BenefitWeb to integrate a wide catalog of insurance products.</p> <p>Designed the extensions of the platform to support subscription services for the products, custom web front and backoffice.</p> <p>Insurance provider connections are based on web service (Apache CXF) and XML RPC (Apache HttpClient).</p>
May 2008 January 2009	<p>BenefitWeb SaaS: Designed and implements BenefitWeb platform. This platform is based on a custom Java / SOA - Service Oriented Architecture - designed for high throughput. It makes the orchestration of products configuration and backend connexions, to provide quotations and products comparison.</p> <p>The platform is build on top of an insurance domain model and a business rules framework mixed of DRools 5 decision tables and Java.</p> <p>Insurance provider connections are based on web site screen scrapping (http and html text parsing).</p>
May 2008 September 2008	<p>Insurance domain model: Designed a clean data model based on JavaBeans, well sliced (core, car, bike, health and house), with XML annotation (JAXB 2) to generate modularized XML schemas, and UML models for documenting and governance.</p>

Prima Solutions, Paris, France 2004 - 2008

Prima Solutions provides standard-based software to support incremental transformation of existing Insurance IT systems into component-based Service Oriented Applications. The company is composed of 20 employees, world wide, including 6 R&D engineers.

- **Designed and developed Prima Repository 5.0 Foundation**

Prima Repository provides an integrated suite of components that can be used to easily develop, deploy and manage SOA applications. It organizes assets for business domains to ensure maintainability and component reuse to incrementally build a repository of reusable services, based on legacy applications and new development.

- **Designed and developed Prima IBCS 5.0 model tooling**

Prima IBCS is an extensive insurance object model. It is the result of several years of R&D by insurance experts and object oriented specialists.

Contributions by order

March 2007 April 2008	Maintenance releases of Prima Solutions products. Prima IBCS 5.1: update to MagicDraw 15.5 and Mia Generation 5.2, added a new semantic plugins based on tag clouds (as editing paradigm for UML tagged values), and a fulltext search plugin with treemap UI results and tagging colors. Prima Repository 5.1: third parties updates.
February 2007 July 2007	Migrated the Prima IBCS UML model from UML 1.4 to UML 2.0 / EMF . The migration includes the rewriting of a code generator based on MIA Generation 5.0 and new MagicDraw 12 validation plugins . Prima IBCS 5.0 has been greatly improved through a specific dependency analysis tools , detecting unintended references between UML packages.
December 2005 January 2007	Redesigned and developed the new Prima Repository 5.0 based on Prima Platform. The redesign is based on the implementation of a new repository API (JSR-170 inspired) , a management model, a basic bootstrap mechanism and isolates clearly the design (asset editing) and runtime (BPM and service engine) phases of the software life cycle. Data-persistence is completely updated through high performance XML files and XML schemas , to facilitate data exchange (import, export, staging mechanism), editing forms, refresh and merging mechanism. The Prima Repository 5.0 integrates ILOG JRules 6.5 , thanks to a repository plugin and the Rule Execution Server.
August 2005 November 2005	Designed and developed the first code generator for Prima IBCS 4.2. The main goal of the code generator feature was to normalise the UML model thanks to a Magicdraw 9.5 plugin and a automated model cartography built in an Excel spreadsheet . The code generator is based on a specific AndroMDA 3.2 cartridge .
September 2004 July 2005	Contributed to Prima Platform 4.x studio by improving workflow editor usability (drag and drop, validation panel, edition toolbar) based on ILOG JViews Component Suite. developed a deployment parameters mechanism to improve runtime staging and a proof of concept of a ILOG JRules 5.1 integration .

ILOG, Paris, France 2000 - 2008

ILOG is a software vendor of enterprise-class software components and services. The company is composed of 650 employees, world wide, including more than 150 R&D engineers.

- **Designed and developed the BRES - Business Rules Execution Server**

This application is part of JRules 5.0. This server-side application is a J2EE integration of JRules. It is based on JCA and JMX and allows deploying, executing and monitoring of business rules.

- **Designed and developed the JViews Workflow Modeler**

This application has been introduced in JViews 4.0 and packaged in a specific distribution named JViews for Workflow.

This editor allows you to edit workflow diagrams described in XML. The modeler is a generic application that is fully customizable through a documented API and XML settings.

- **Designed a light document/view framework** for developing applications that display diagrams.

- **Developed and packaged a set of code sample demos** to show the features of a Java MVC component named SDM (Stylable Data Mapper). This component allows displaying and editing of diagrams.

- **Updated and maintained the use of Apache Ant and Apache Tomcat** in the JViews distribution (including the build and deployment scripts).

Contributions by order

January 2004 August 2004	Designed and developed the security and the clustering management of the BRES . Implemented the JASS security of the BRES model and the distribution of the JMX MBeans in J2EE clusters of BEA Weblogic 8 and IBM Websphere 5.
June 2003 December 2003	Designed and developed the management model and the web console of the BRES . This console allows you to manage the BRES JMX model from a web browser.
March 2003	Designed and developed a proof of concept on rules execution monitoring . The demo shows how to integrate alarms and KPI in the ILOG JRules engine using the JMX technology .
March 2002	Developed a prototype of a connector to provide runtime-monitoring views of a business process running in the Versata Interaction Server (workflow engine from Versata). The prototype was shown at the JavaOne 2002 Conference.
February 2002	Developed a demonstration of a wireless application based on maps and routing computation . Implemented a J2ME/MIDP cell phone client and a J2EE application for displaying routes on a San Francisco map. The demonstration was shown at the JavaOne 2002 Conference.
December 2001	Developed a thin-client workflow-monitoring cockpit based on the JViews DHTML library. Implemented DHTML table and inspector components linked to a server side data model. The demonstration is visible on the JViews web site.

How to Share the Business Logic in a Polyglot App Mixing Java and TypeScript

| September 2019 **Oracle Code One** [BOF3570] - *San Francisco*

Application Secrets Deployment: Hashicorp Vault and the continuous delivery

| June 2019 **Open R&Day** - *Paris*

How to Create a Fluent API DSL with Lambda Builders

| April 2019 **Oracle Code** - *Roma*
| October 2018 **Oracle Code One** [BOF5129] - *San Francisco*

DSL.using(Java).toGoBeyond(BeanValidation);

| July 2018 **Oracle Code** - *Paris*
| June 2018 **Open R&Day** - *Paris*
| April 2018 **JDK.io** - *Copenhagen*
Ippon BBL - *Paris*
| October 2017 **SoftShake** - *Geneva*

Goto Cassandra in 40 minutes

| June 2018 **Cassandra Meetup** - *Paris*

DomainModel().stream()

| June 2017 **Open R&Day** - *Paris*
| March 2017 **Meta Conference** - *Peterborough*
| January 2017 **Breizh JUG** - *Rennes*
| October 2016 **Mars JUG** - *Marseille*
| June 2016 **Geneva JUG**
Paris JUG
Chti JUG - *Lille*
| March 2016 **Alpes JUG** - *Grenoble*
| January 2016 **Tours JUG**
| October 2015 **SoftShake** - *Geneva*

Lambda Architecture at LesFurets.com

| March 2017 **Meta Conference** - *Peterborough*
| April 2016 **Ippon Master Class** - *Paris*

Rock solid UI modeling using annotation processing

| April 2013 **CodeGeneration** - *Cambridge*

Smart use of annotation processing

| March 2013 **Paris JUG**

Multi device Content Display and a Smart Use of Annotation Processing

| October 2012 **JavaOne** [CON11234] - *San Francisco*

DevOps story - Application configuration jungle

| June 2012 **Paris DevOps User Group**

APT - Annotation Processing Tool in a nutshell

| June 2012 **BreizhCamp** - *Rennes*

DevOps story - Application configuration jungle

| April 2012 **Devoxx France** - *Paris*

Education

1997-2000	Ecole Supérieure en Sciences Informatiques - Sophia Antipolis - France Graduate Engineering School Engineering Degree, Computer Science.
1995-1997	Université de Franche-Comté - Besançon - France DEUG Science - Degree given for the first two years of university. Graduated 29/198.
1995	Lycée Jules Haag - Besançon - France Baccalaureate S (scientific subjects, equivalent to A level)

Languages

French	Native language
English	Fluent
German	Conversational

Personal

Photography, video recording and sports (especially mountain biking).