IN SHORT

Early digital native with over 30 years of programming.  
20+ years of experience in professional development in multiple types of company from nascent startup to fortune 500.  
On a lifelong learning journey, I keep up to date in highly scalable architecture, blockchain technologies and deep learning.

specialties

• In depth knowledge of modern software development

• Software solutions design and architecture

• SecDevOps Oriented, Quality and Performance focused

Jean Llorca

* lead architect
* azure specialist
* future technologist

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• Applies modern data patterns from edge to cloud

• Event Sourcing - CQRS – Immutability - Blockchains

• ML / Deep Learning – Keras, TensorFlow

• Increasing value through shorter data enrichment cycles

• Enabling advanced predictive UX for users

• Better informed decision around costs

• C# language and .net environment expert (18 years exp.)

• Cloud: Azure (10 years exp.) AWS, GCC

• Establishment of technical roadmap for products

• Good knowledge of the software ecosystem

• Strategic buy of build decision on software components

• Writing design and technical documents

• Negotiations with client on technical solutions

• Technical project management with risks analysis

• Recruitment, performance interviewing

• Technical training and mentoring

Graphical user interface, application, Teams

Description automatically generated  
Experienced and proficient on the full data value chain, I can discuss the big picture with decision makers, align design with their priorities, guide actors at any development stage on any stage, and ensure alignment and a shared vision while considering each layer’s own peculiarities and challenges.

Finding the good compromise between cost and time to market without compromising quality or maintainability requires more than a good knowledge of the tools.

IoT Edge: memory and CPU is relatively scarce as well as bandwidth when synchronizing.  
SQLlite, MongoDb Realm, synchronized of Json REST or custom protocols.  
Operational: great diversity of Database. My preference is to pick the right database for the use case at hand, which is enabled by a micro-service architecture.   
MS Sql Server, CosmosDB, Redis, Couchbase, Elastic, ClickHouse, EventStore…  
Integration: a key goal is louse coupling, enabling both branches of the product to evolve without breaking the other, while other consideration include latency.  
There’s many available products in this segment. From data catalog to event topics, even blockchains can be considered.  
Analysis: depending on the update model batch or streaming, I am experienced in Azure Stream Analytics, Databricks or Azure Synapse.  
Repositories: are quite standardized depending on the type of use. Data Lake, Data Marts etc.…

January 2019 (ongoing) – Lausanne, Switzerland

Experience

2017

2021

Architect at Inexto SA

With the perspective of new regulation increasing massively their data need Inexto needed some expertise to be able to quickly rearchitect one of their line of product from a monolith to microservices.

We went from a highly peculiar customized single customer WCF / Asp.net stack to a best of breed multitenant Saas service running as a microservice cluster of dotnet5 containers in Kubernetes while maintain backward compatibility at each step of the refactoring.

The following months saw massive performance gains, and significant reliability improvements, applying ant-fragile patterns, switching from ServiceFabric to Kubernetes, as well as following the latest .net version, up to dotnet5 as of writing.

Data Challenges:

*Support multiple country data regulations including China and China*

*Maintain performance while seeing data volume increase 100x (~1.5 TB/year)*

*Provide real time analytics to both customers and sales*

*Analysis of full hosting costs for specific features.*

My area of focus moved from API and DevOps to the full product stack as well as well as Mobile, FrontEnd, and adopting some DevSecOps company wide.

Application of the DDD methodology especially Event Storming to get the team on the same page and allowing the refactoring to be aligned with business needs.

* Azure, Kubernetes, Docker, Service Fabric, WCF, .net core 2.2 -> net5.0
* Services in GRPC, REST, clients in Angular and Xamarin (MAUI)
* SQL Server, CosmosDB, MongoDB Realm, Azure Data Lake
* Event Hub, Service Bus, Event Grid, Data Fabric, Azure Synapse Analytics
* Azure DevOps, Git, DDD

September 2015 – Jan 2021 – Geneva, Switzerland

Consultant at Wide Agency (Cross Systems)

Tag Heuer is a world-renowned watchmaker. Its platform comprises classical elements like Point of Sales, eCommerce, Supply Chain, CMS, CRM, Identity Management and more specific ones like digital watches and mobile apps.

Clients include Medtronic, Neuchatel State, Tag Heuer, Fribourg State, Geneva Airport – detailed below.

Presales – I was part of winning bids for Fribourg State and Geneva Airport.

Proofs of Concept around Blockchain Ethereum, Fabric and machine learning.

Studies – Impact of GDPR for various projects, developer outreach

Improvement on methodologies:

* Spearheaded the DevOps practice at Wide
* Security audits of dependencies

December 2017 (ongoing) – Geneva, Switzerland

Architect for Geneva Airport

Redoing the website main website including a major overhaul of the ecommerce / booking system front-end and back-end.

Coordinate with various teams and contractors to establish best practices. Defining the architecture. Ensuring high availability and eventual consistency over heterogeneous webservices.

Data Challenges:

*Support eventual data consistency over multiple systems*

*Provide a synthetic view of multiple booking channel and back-end systems*

* Kentico, ASP.NET 4.71, .net core 2.1, MS Orleans, Docker
* Docker, Microservices, TFS, DevOps

October 2017 – August 2018 – Fribourg, Switzerland

Architect for Fribourg State

Fribourg state is a rather straightforward Drupal project. The main challenges were finding the best hosting solution and studying their impacts over the lifetime of the project with the client.

PoC and architecture diagrams and meetings over tentative in-house deployments using Kubernetes, MS Azure, AWS and Acquia. These choices were made rather flexible by early betting on Docker and infrastructure as code technologies

Data Challenges:

*Review the legislation and legal contracts surrounding hosting Swiss public data over public clouds*

* Visio, Terraform, Azure, AWS

Experience

2016

2018

December 2016 (ongoing) – Geneva, Switzerland

Architect for Tag Heuer Digital Platform

Tag Heuer is a world-renowned watchmaker. Its platform comprises classical elements like Point of Sales, eCommerce, Supply Chain, CMS, CRM, Identity Management and more specific ones like digital watches and mobile apps.

Coordinate a team spread across multiple time-zones, from different contractor and disseminate a common architectural view.

Made use of APM to pinpoint performance problems in a heavily distributed environment.

Data Challenges:

*Architected the move and consolidation of Customer specific data onto Salesforce*

*Designed replication across multiple datacenters including China to improve performances worldwide*

* Swagger, VISIO, New Relic, Git
* Drupal, Magento, CAS, SalesForce, Java Spring

November 2016 to January 2018 – Neuchatel, Switzerland

Lead Architect at State of Neuchatel

Neuchatel is a relatively small Swiss canton. This mission is helping to update their technology stack while improving productivity.

Move toward DevOps practices with Docker, client-based rendering with Angular, while shifting to always on, reactive architecture and away from externally managed batches.

Data Challenges:

*Enabled a reactive data structure enabling a consistent synchronization of multiple systems in batch and/or real time.*

* .net core, asp.net core, C#, RethinkDB, Docker Sql Server
* Angular, Typescript, ServiceStack, NServiceBus, IdentityServer4, Hangfire
* Git, TFS, Seq, AppDynamics

Delivered multiple showcase projects. Improved quality and tracability through APM and distributed logging tools.

September 2015 to October 2016 – Vaud, Switzerland

Experience

2015

2016

Technical Lead at Medtronic

Medtronic is the world leading biotech manufacturer.

Medtronic Connect is a multivendor eCommerce B2B and B2C platform with client-side inventory management and automated replenishment, plugged into the company infrastructure and processes.

Revolutionary for Medtronic it includes principles of collaborative development within Medtronic, and modern architecture like micro-services.

The proper selection of tooling coupled with a method of impact mapping allowed to convince a skeptical management venture into unknown territories during this high profile, multimillion project.

* C#, OWIN WebApi, Sql Server, CouchBase, ElasticSearch, RabbitMQ
* NServiceBus, nginx, StatsD, Graphite.
* GitLab, TeamCity, ProGet, Octopus Deploy, Bugsnag

Established the REST API standards used across team.

Decided on the Git flow and coding standard.

Animated the .net team to capitalize on best practices.

Onboarded developers.

Selected tools around the software lifecycle development, participated in the processes of qualification and acquisition of these tools.

Designed the orchestration of various backend components, around nServiceBus.

Architected the software to separate business unit specific concerns from common ones.

Partnership management.

Designed multiple integration of the platform with various business unit solution architects.

Data Challenges:

*Allowing eventual consistency in a non-ACID database.*

*Append-only CQRS inspired design of operation DB.*

*Index and continuous synchronization of indexes*

*Maximizes performances for webservices through reactive architecture allowing denormalized, distributed custom views to live next to edge services, while maintaining all data.*

*Designed web-scale hotel market price collection through scraping*

*Implemented many to many fuzzy hotels matching between various sources using Hadoop map reduce.*

Experience

2012

2014

September 2012 to November 2014 – Paris, France

Lead Architect at Availpro

A top 100 software company in France, Availpro offers a SaaS solution for hotels. Its traditional strong points are its booking engine and its channel manager with over 150 distributors.

Over 3000 hotels connected, leading to over 10k bookings representing over 1M EUR processed daily. 80 employees – 25 developers – 2 architects

* C#, F#, Sql Server, MongoDB, Event Store, MSMQ, nginx, StatsD, Graphite..
* On Azure: VMs, Web and Worker Roles, Service Bus, Blob Storage, Hadoop, Networks

Technical design for the booking engine rewrite. SPA, MVC5, Web API.

Evolution of custom Service Bus architecture.

Improvements on diagnostics and traceability. Using StatsD and Graphite.

Initiated the move to Azure, now comprising over 30 instances.

Use of SendGrid for transactional emails.

Use of Bugsnag, New Relic, StatsD and Graphite for diagnostics.

Scraping and web mining framework, allowing to retrieve prices of about any hotel, daily, over a two month period.

Meta-search integration. Conversion tracking platform. Integration with Google hotel price adds, Tripadvisor, Trivago and others…

Reactive live cache architecture for optimal performance.

High level script language design, for automation. Reactive design.

Product evolution roadmap.

Partnership management.

Data Challenges:

*Maximized performances for webservices through reactive architecture allowing denormalized, distributed custom views to live next to edge services, while maintaining all data.*

*Ensured Data consistency across 100s of partner booking engines and 1000s of independent hotels.*

*Designed web-scale hotel market price collection through scraping*

*Implemented many to many fuzzy hotel matching between various sources using Hadoop map reduce.*

January 2011 (ongoing) – Paris, France

Experience

2010

2015

hylaean industries

Founder at Hylaean Industries

Hylaean Industries is my one man consulting operation.

I specialize in architecture consulting, code reviews, performance optimization and occasionally bug hunting.

January 2015 to December 2015 – Paris, France

Consultant for EverAntiq

* Azure, Asp.net MVC, Single Page Application, machine learning

Designed the data flow for a long product pipeline in an antiquities startup.

Scraping, Categorization, CRM & eCommerce integration

November 2014 (ongoing) – Paris, France

Consultant for Swail

* Social, Azure, Asp.net MVC, Single Page Application, Xamarin, Unity

Architecture adaptation for Azure deployment.

Build and deployment processes.

December 2012 to August 2012 – Paris, France

Consultant for Yomii

* Social, Azure, Asp.net MVC, Single Page Application, Xamarin

Use of CQRS for customer data collection and analysis

Azure Service Bus for events and commands.

System & software architecture.

Development of a Pinterest like site for product selection.

Team recruitment.

May 2011 to February 2012 – Paris, France

Consultant for Curioos

* Azure, Asp.net MVC, SQL, nHibernate

Stability and performance enhancements

Code and design reviews

Technical roadmap

Wrote proposal leading to a public research grant

October 2008 to May 2010 – Paris, France

Software Architect at *FullSix*

Experience

2008

2010

FullSix is a leading French digital agency, among the top 50 communication groups globally. Over 60 developers in Paris.

* C# Asp.net, Asp.net MVC, Sql Server, TFS

Technical lead of the 10 people .net team.

Establishing methodologies and processes.

Hiring and mentoring of engineers of various seniority level.

Redesigned for reusability software components allowing for faster and more reliable website development.

Social integration, CRM + Clickstream Data Analysis

Technology intelligence

Projects delivered included

[cuisine.larousse.fr](http://cuisine.larousse.fr): cooking recipes

[assoandco.fr](http://assoandco.fr/): forum and content website for labanquepostale (bank)

sncf.fr : various websites around fidelity programs and special operations

[coca-cola.fr](http://www.coca-cola.fr): front page, custom CMS, games

visa.fr: client facing website around credit cards programs

vogue.fr: CMS and games for the Condenast online publication

Internal projects for Fullsix:

Clickstream analysis (architecture design)

Proofs of concept:

Schemaless NoSql with MongoDB

Cloud: deploying on Windows Azure

Column store: Vertica suitability for clickstream analysis

Data Challenges:

*Selection of Column Store to store all FullSix campaigns stats allowing complex conversion attribution rules, storing over 1B clicks per year and dashboards.*

May 2006 to October 2008 – Paris, France

Experience

2006

2008

Consultant at Blue Consulting

September 2008 to October 2009– Paris, France

Software Consultant for AXA Investment Managers

With over 600 billion EUR of portfolio valuation, AXA-IM is one of the world’s biggest asset management companies.

* C#, Asp.net, Winforms, nHibernate, Sybase

Design around a grid platform for risk management, various PoC for various grids whose selection took forever.

Expert role, assured support on C# and .net for several teams.

Evolution and maintenance of various software.

Showcased nHibernate on the fees management software I developed.

February 2007 to September 2008 – Paris, France

Project Manager for fnac.com

Leading French e-tailer, fnac was redeveloping its product database.

* C#, Winforms,WCF, Sql Server, Infragistics and DevExpress components

4 people, 2 man-years project

I was responsible for the design and delivery of the product categorization feature as it appears on the website.

Automated product allocation engine with visual rules builder.

May 2006 to February 2007 – Paris, France

Software Engineer for fnac.com

Leading French e-tailer, fnac was rewriting its font-end with the goal of minimizing server needs and adding new features.

* C#, Asp.net, Sql Server

Framework development.

Reactive distributed cache development.

Asp.Net Donut caching development.

Custom micro-ORM development.

Use of Reflection.Emit for various optimization.

Performance tuning.

December 2004 to March 2006 – Aix-en-Provence, France

Experience

2001

2006

Software Architect at GFI Informatique

Consultant for MGP Instruments (contractor)

MGP Instruments is the world leader in dosimetry solution. Deployed worldwide in over 50% of nuclear plants, hospital, labs and nuclear-powered ships.

* C#, C++, COM, Oracle, Sybase, MS Sql, nHibernate, remoting

Architect and developer on a 7 man-years project, nuclear industry.

Operational dosimetry solution customizable for any customer or national regulation.

High performance requirements.

Mentoring programmers with no previous experience in object or .net.

September 2003 to November 2004 – Cape Town, South Africa

Software Engineer & Architect at Thales Telematics

Customizable fleet management software with embedded hardware around GPS and GSM.

* C++, .net, distributed applications, remoting.

Embedded devices, servers and desktop applications

High performance requirements

Architecture of .net solutions

Initiated **TDD** and Agile methodologies within Thales Telematics

April 2001 to September 2003 - Paris area, France

R&D Developer at Netquartz

Netquartz proposed an innovative Digital Rights Management for software.

Principle involved extracting a piece of binary code and allowing its remote execution in a controlled environment.

* C++, Qt, boost, python, TCP/IP, SOAP

Development targeting multiple environments: Windows, Mac and Linux.

Design and implementation and documentation of software solutions.

Research of processes and methodologies regarding the product (patent proposal): Virtualization of the Virtual Processor for injection selection based on complexity algorithms applied to machine code, and out of order execution for maximum performance.

Design and development of a message based, distributed and portable component framework including thread management and network (TCP/IP, or bidirectional HTTP).

Embedding of Python as a scripting language, and XML defined user interface.

Managing projects of 3 people, one man/year.

Study of .net platform to evaluate suitability of DRM methods.

September 1998 to December 2000 - Annecy, France & Treviso, Italy

Experience

1997

2001

Developer at Salomon

Salomon is a multinational sporting goods company with a centralized IT around its headquarters in Annecy, France.

* C, C++, VB, Oracle

Automated Fax System with routing to cheapest modem. C++

Integration of validated certified conversion to Euro libraries in various systems. C++

Design and implementation of a software to orchestrate data synchronization between all systems. (2 men team) - Pro\*C and Oracle Forms.

Integration of production machines to ERP system, automating the declaration of various stages of product completion. VB and C++

June 1997 to October 1997 – Europe Spaceport, Kourou area, French Guyane

Trainee at CNES

CNES is the French space agency. Its main responsibilities include the development of new launchers for Arianespace.

* Html, Javascript, Apache, cgi/bin

My responsibilities were to develop templates in html and javascript for departments to use in the then nascent intranet.

Use C to develop functionalities in cgi/bin:

Contact forms and support ticket creation.

Setup the webcasting (intranet) of the move of Ariane 5 to its Launchpad.

Languages

OTHER

English: fluent, ELTS certified

French: native

Italian: professional experience

Spanish, German: travel experience

technologies

* **Azure**, AWS, GCC, Windows Server, linux, Docker, Kubernetes
* Git, Mercurial, CVS, Subversion, TFS,
* Agile, Scrum, XP, TDD, DDD
* C#, C++, Javascript, F#
* .net 5, ASP.NET Core, Xamarin, MAUI
* MS Sql Server, Sql Azure, MongoDB, Oracle, Event Store…
* Azure Service Bus, MSMQ, RabbitMQ, 0MQ
* Distributed Caching, Multi-threading, Asynchronous Programing
* Architectures: **Microservice, Reactive, Event oriented** (CQRS)

Education

1999 ECA, Annecy

Formation qualifiante en gestion de projet informatique   
(~ Bachelor in Software Project Management)

1998 ECA, Annecy

BTS en Informatique Industrielle   
(~ Diploma in Applied Computer Science)

2017 MIT, online

MIT Fintech: Future Commerce

Interests

Philosophy and Ethics

Hiking, Skiing, Scuba Diving

Go player

Avid traveler.

References

Some are available on my LinkedIn Profile: <http://linkedin.com/in/jeanllorca>

Other are available upon request.