



# Virgile Devaux

## Senior Backend Engineer<sup>++</sup>

Master in CS



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or through [LinkedIn](#)

Open to a position of **Senior Backend Engineer** or **Engineering Manager** (full remote or hybrid on Lyon).

### In a few words

I'm a **passionate, hard-working** software engineer with a strong focus on **backend development**.

I lead by transparency and example, and if I love sharing ideas and knowledge to reach a **consensus** I know when to make a **decision**.

**Simplicity** is my motto, as the "art of maximizing the amount of work not done"<sup>(1)</sup>.

**Open-minded**, curious of others, I grow by helping my **teammates be their best selves**.

### Hard Skills

Used daily:

NodeJs, Python, Git - Gitlab CI/CD, Docker, Linux Admin, MongoDB, Redis, Bash scripts

Used to be good at:

C, C++, Java, MySQL, PostgreSQL, ElasticSearch

I'd rather do:

Go, NodeJs, Python, But I'm very open-minded there...

Except maybe:

Java

### Soft Skills

Relaxed but true and natural leadership - Resource person - Experience of addressing a wide range of audiences from CTOs to trainees, through researchers, developers, architects and managers, in a multicultural environment - Always good mood and kind ☺

### The things I do

as a **Senior R&D Engineer**

since 2018

Python, NodeJs, AI, Infrastructure, Ops, Innovation, Techs Lifecycle...

Awarded "**Senior Expert in Machine Learning, Data integration and Software**" by my company, I joined the Scientific and Technical Direction team of the R&D/Labs departement.

My position is three-folds:

- ① **In charge of the Labs on-premise Infrastructure:** the Labs has its own hosting infrastructure and compute farm, about twenty host servers for the oVirt virtualization solution. Deployment and maintenance of all tools for the Labs: shared databases, creation of specialized VMs, Swarm docker for the deployment of demo services, GitLab runners, package managers, ... I also help the R&D colleagues to use these tools and services.
- ② **Promote innovation** by developping tools like the company's **Techradar** or a service to help each BU's Labs entity to manage their **roadmaps**. I also give internal talks about new trends in technology. Lastly I led the acceptance of Rust as the primary low-level language for Worldline or a gitlab crawler to ensure secure, consistent and updated design of projects.
- ③ As one of the few engineers in the R&D department which is mostly composed of PhDs in CS, **turn proof-of-concepts and even raw material like machine learning models into viable, production ready solutions**. This is my preferred part of the job, when I interact with people to help them ship their findings to the real world.

During these 6 years, I strengthen my skills and learned a lot too, from Python to Go, from Linux administration to virtualization and cloud, from Tensorflow to Svelte, from Blockchains to Quarkus, I jumped

happily from one technical stack to another, always eager to learn and pass on back my new technical crushes.

## as a **Senior R&D Engineer - Senior Project Leader**

from 2015 to 2017

AI, NodeJs, Python, MongoDB, redis, Docker, Fraud detection, C++ ...

Back from a BigData world, I then integrated the HPC team in R&D where I notably first encountered AI. In a small team I worked mostly in autonomy, designing and developing several solutions, e.g.:

- **InstantScore: Containerized AI as a service** solution with automatic model re-training. (NodeJs, Python, MongoDB, redis). Currently used in production for fraud detection in Belgium issuing transactions (200K trx/day) and for predictive maintenance for French ATMs (helped lower the overall downtime of the fleet by 15%).
- **SmartStream: real-time, lightweight, containerized, multi-languages data integration toolkit**; it is a pipeline of microservices not based on a message bus (Java, Python, ZMQ, Spring)
- **Digital-Signage: rework of an interactive advertising PoC with facial, gender and age recognition and customers tracking**; redesign of the architecture for distributability, switch to more efficient technologies and libraries, rewriting of tracking algorithms. Creation of the administration and statistics web service (Java, C++, Python, Angular, OpenCv, Cuda, DLib, ZMQ, ...)

## as a **Senior Data Engineer**

from 2013 to 2015

BigData, NodeJs, Spark, Hadoop, ElasticSearch, MongoDB

I first **led the technical side of the creation of the "BI & BigData Business Center"**. With a marketing specialist we interviewed several Business Units Manager to gather needs around the emerging topic of BigData and made several proposal for new assets and services around the subject.

This led to the design and development of "DataValueFactory", an advertising targeting tool operated as a trusted third party. We gathered from suppliers and partners personnal user data that were then cleaned, processed and used to define very precise target for advertising campaigns.

We used, amongst others, the following technologies: Angular, NodeJs/HapiJS for the REST API, Spark, Hadoop, ElasticSearch, MongoDB

## as a **Senior R&D Engineer**

from 2010 to 2013

NodeJs/SocketIO, ElasticSearch, MongoDB, Pre-sales, ...

After 2 years of managerial functions I wanted to return to a technical position and integrated the "Prospective and Emerging Projects" team of the R&D department.

This team of 5 enthusiast and talented engineers was developing proof-of-concepts and tooling services to explore innovative technologies and usages.

Our key achievement was the design and development of the first OpenData platform of the company, "SmartData". After a first proof of concept using OSGi, Java Spring and CouchDB, we switched to then emerging stacks: **NodeJs/SocketIO, ElasticSearch and MongoDB**.

"SmartData" was kind of an **automatic ETL as a service** which could ingest, process, store, and distribute semi-structured data from a wide range of formats though versatile and open APIs.

While actively developing these solutions I also helped business units in pre-sales activities at the innovation side of events.

## as a **Team(s) Manager**

from 2008 to 2010

Managed 2 teams, Business, Product, Leadership, Innovation, Change mgmt, ...

I first managed the team responsible for delivering the WebMail part (including the XML APIs) of the "GoLive!" mail platform. Under my leadership, we migrated from an in-house JSP-like solution to generate

the XML stream to an open-source stack and finally get rid of 90% of deployments' rollbacks. Then I also took responsibility for the "Small Clients" business, including ISPs like DartyBox or professionals like Allianz, PMU, ... The goal there was to prevent them from leaving, which I did by simply restoring a transparent and honest relationship.

### **Managed 10 Eng. (plus trainees) - 3.6M€CA**

One of the best parts of the job, though, was to help restoring my teammates self-confidence, motivating them to reach their full potential.

## as a **Tech Leader**

from 2007 to 2008

Java, Build&Run, Mail Platform, Leadership, ...

Technically leading the team (6 Eng.) responsible for specific developments and delivery of the LaPoste.Net mail solution (23M mailboxes) based on an in-house mail platform solution, "GoLive!"

## as a **R&D Engineer**

at JetMultimedia from 2000 to 2007

MultiChannel, Vocal, C++, XML, ...

I was developping services, used by the business units or our clients themselves to develop added value services. E.g. :

- **Easyclick: Access value-added webservices** by calling premium phone number and connect through the Easyclick proxy
- **JvmlBrowser: an in-house precursor of a VoiceXml solution**
- **VdxmlBrowser: allowing web developers to easily deliver VideoText (Minitel) applications**
- **Serpent: multi-agent software monitoring all company's services** and infrastructure with automatic multi-channel alerting of operation teams.

In this little department full of talented people, I had the opportunity to develop the main moto of my career: always strive for the simplest solution to the most complex goals.

## as a **Design And Development Engineer**

at CosmosBay from 1999 to 2000

MultiChannel, Internal/External Trainer, Consulting, ...

During my first permanent contract, I studied and developed audiotel, minitel, web and wap services (Crédit Agricole, Crédit Foncier Banque...) per day or project.

I also rapidly became an internal and external trainer on the company's products, in particular CosmosSuite (multi-channel design IDE)

I even sometimes serve as a technical consultant in support of pre-sales teams on these products

I learned a lot about the way work is organised in an IT company and I confirmed my penchant for technology, especially backend solutions.

## as a **Programming Analyst**

at multiple companies from 1998 to 1999

First Experiences, Discovering IT...

As a contractor for multiple companies, I spent a year exploring the different possibilities offered by my formation.

I notably developed in Visual C++ in an industrial context, on mainframe for a notarial activities company, as a pure analyst programmer for the Renault SA HR departement.

These experiences helped me made up my mind about my preferred activities in the IT world.



Whooo, you made it here ?  
Then here's something more personal

## On the personal side

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I'm almost 50, I'm single, I got a grown-up son, he's 18 now and the most important part of my life ☺

IT is my second passion so in my spare time I often throw new ideas, processes and techs at my daytime tasks to learn and improve. I personally think that my company's projects are the best playground to learn new skills ☺

On my spare-spare time, I'd rather hangout with friends than doing sports "\\_ (X) \_/"

My vision of a perfect evening though is reading a good book ☺, listening to some Blues ☺ while enjoying a fine glass of wine ☺.