Jean-Baptiste Lasselle
Devops Quant

Who I am

I code with **terraform, packer, pulumi**, I dive into app code with developers, I **automate everything** about infrastructures. I am a **Gitops** and **Infrastructure As Code** evangelist. I love understanding, learning and implementing new ideas within my team, And everywhere, I love challenges !

My best friends list

Kubernetes, Terraform, Packer, Pulumi, FluxCD, Atlantis, Circle CI, Gitlab CI, Tekton, Jenkins, Openstack, Ansible Tower (AWX), PXE Booting, Secrethub, HashiCorp Vault, Docker, Docker Compose, K3D, Minio, Nginx, Traefik, Linux shell bash / sh, Ubuntu, CentOS, Debian, Alpine, TypeScript/NodeJS, React, Tailwind CSS, ViteJS, https://gohugo.io https://astro.build , Golang, Python, MAVEN

I usually devops'n CI/CD with

Terraform, Packer, Pulumi, FluxCD, Atlantis, Circle CI, Gitlab CI, Tekton, Jenkins, Ansible Tower (AWX), shell scripting (sh/bash)
Azure, AWS, GCP, OVH, Openstack

I started as a developer many years ago.
Since 2015, I am focused on how to develop and operate softwares in a cloud world.
In a word, I love coding and automating everything.

I today am A **Gitops** fanatic, an **Evangelist** in love with automation, Cybernetics is a concept i am really keen on (Kubernetes Controllers, Operators, AutoScalability, self-healing abilities).

My interests today are:
- Designing and implementing **Infrastructure As Code** the gitops way
- Developing **terrafrom providers**, and **terraform-compatible cloud providers**
- Developing **Kubernetes Operators**

Professional Experiences

> Limagrain

Devops, terraform SME
09/2023 - 02/2024

Project Context: At Limagrain, a business critical, internally developed app, had only one environment, and no production env. I was in charge of building the missing production environment.

In charge of building the production environment, I was first assigned the task of auditing the whole project, both in terms of infrastructure, and CI/CD.

I produced a first executive summary, providing opinionated recommendations.
My two main recommendations were:
- to automate "everything": both the infrastructure management with **terraform**, and the dev CI/CD
- to spin up isolated environments to promote releases from dev, to staging, UAT, up to the production.

Duties and achievements
- I was then in charge of implementing my recommendations, **working with the Dev Team (5 developers), on one end, and the core infrastructure teams** (compute, identity, network, security teams), on the other hand.
- I was invited to **architecture labs**, to give a **talk on terraform** and infrastructure as code concepts. My talk was very appreciated, so that other departments requested to have **knowledge sharing workshop** with me.
- I was required to attend the validation gates meetings, required to allow the app to go to production. My role was to answer the question about infrastructure and automation design choices details.
- Terraform was not used at all in the project, and I **convinced** the management, and the core infrastructure teams, **to start using terraform for infrastructure management**, especially in **production**.
- In less than 4 months, I brought up with terraform, 3 new isolated environments, DEV, UAT and production. I also found and solved a couple of very complex issues integrating Azure cloud components and Microsoft Dynamics.
- The terraform achievements, my **evangelist** conviction, added to the support of the new architect in the Dev team, and the project managers, resulted in a real victory: In January 2024, several dedicated Azure subscriptions were given to the Dev Team department, where initially a single Azure subscription had to be shared with other departments!

Tech
- *Devops stack*: **Terraform, Helm, kubectl, Docker**, **Azure AKS / App Gateway Ingress Controller (AGIC), Azure Functions, Azure CosmoDB, Azure EventHub**, Azure Devops (Pipelines), Azure Managed identities / Service Principals, **Azure networking - vnet, subnets, private endpoints**, Artifactory, shell scripting (sh, bash).
- *OS*: Windows Server, many dockerized Linux distros for CI/CD.
- *Dev stack*: I mainly used terraform and did only Infra As Code. I only had once to dive into code, to be able to shell script the full build from source of the Dotnet Azure Functions.

> Michelin

Devops Lead
11/2022 - 09/2023

Project Context: At Michelin, Data Engineering / AI Project

I was in charge of managing all Azure resources with **terraform** (Azure Storage Accounts, vnet/sbnets, VMs, managed identities, service principals, etc…).

I was involved with 2 Data engineer SMEs, to **re-design and implement** the whole
Data Engineering platform. I was working on the CI/CD scope. The new design involved a **migration from** an **{Azure Data Factory / ADF Pipelines} stack**, to a much more advanced, **Python**-based, **{Databricks + Snowflake} Stack**.

The new data engineering platform processed data by executing Python code, and therefore needed a fully fledged Python CI/CD.

Duties and achievements

- Managing of **Azure** resources with **terraform**: Databricks workspaces, Azure Account Storage, networks, Azure Key Vaults, Managed Identities, R-Studio VMs, MongoDB clusters, etc…
- **Modularization of terraform code**, management of terraform state: **terraform modules**, terraform private registry, terraform state into Azure Account storage container
- Design of **CI/CD Modules**, **CI/CD runners** Docker images (Python code)
- Design of **CI/CD Pipelines**: **Git workflows**, **Gitlab** release automation with `gitlab-cli`, **python** packages deployment to databricks (**databricks scheduled jobs**), snowflake (with liquibase).
- Design of **Documentation**: `astro`/`hugo` documentation repo with automation based on Gitlab CI/CD pipelines.

Tech
- *Devops stack*: Databricks, dbx, Snowflake, dbt, Terraform, Helm, Docker, Kubernetes, Azure, azcopy, Gitlab, Artifactory, shell scripting (sh, bash), make.
- *OS*: Windows Server, CentOS, many dockerized Linux distros for CI/CD.
- *Dev stack*: Python, Python setuptools, NodeJS TypeScript, Astro, Hugo.

> Gravitee Source

Devops Engineer, Kubernetes Team
07/2020 - 03/2022

Devops at Gravitee, Kubernetes SME, I competely re-designed i re-implemented the whole Gravitee CI CD, migrating from Jenkins to Circle CI on the way. I can say that I today am a top expert about Circle CI and Gitops absed CICD. I am extremely proud that I had the opportunity to work with the https://gravitee.io Team, a World Class Team of Software Engineers, from which i deeply learned about many stopics. I also there learned

a lot about what is, and what brings, cybernetics in the real cloud industry world.

Duties and Achievements

- Full design, implementation, and migration of the whole of the Gravitee CICD System. In particular, I had to design and implement a very unique CICD component, using NodeJS TypeScript RxJS, a component to orchestrate Pipeline executions in a multi git repository context, bringing scalability and removing Single Points of Failures.
- Implementation of all standard operations using pure infra as code of gravitee hosted offers (deployment, backup, restore, upgrades, downgrades, cloud provider migrations, etc.).
- Design of hosted saas offers fo the Gravitee API Gateway,
- Design of best architecture practices for Gravitee API Gateway users.
- Circle CI Evangelist for the Dev Engineers
- Training junior devops engineers
- Kubernetes SME
- Level 3 Support for Gravitee Customers, example: design and provisioning of a VPN Gateway between Azure and Google GCP

Tech

- *Devops stack*: Pulumi, Terraform, Helm, Docker, Kubernetes, K3D, Azure AKS, AWS EKS, FluxCD.
- *OS*: Debian, alpine, and many dockerized Linux distros
- *Dev stack*: NodeJS/TypeScript, Python, bash /sh shell, Golang.

> CRESH.EU

Devops Engineer
05/2020 – 08/2019

At https://cresh.eu, a small french Startup, I worked on designing and implementing the entire Cloud Infrastruture, 100 % Kubernetes based: Cresh offer is a SAS Offer, an innovative b2b payment solution. AWS EKS, Helm deployment of dev's work, Gravitee API Gateway. https://gravitee.io founders heard of me because of the work I did there at cresh.

Small Startup when I helped them, I was at the time the only devops engineer, and massively used Pulumi and Terraform.

Having major architecture and technical points of disagreement with the CTO, we together agreed to end our collaboration.

Duties and Achievements

- Devops SME / Cloud Architect, full infrastructure design
- Kubernetes SME
- Main Kubernetes Cluster Terrfaformation Automation.

Tech

- *Devops stack*: Pulumi, Helm, Docker, Kubernetes, AWS EKS, Gravitee API Gateway.
- *OS*: Debian, Alpine.
- *Dev stack*: NodeJS TypeScript, bash /sh shell.

> SFR

Devops Engineer
07/2019 – 10/2019

Devops contractor at SFR (French ISP and phone operator), Cisco NSO project Team (SDN)in charge of datacenter deployment automation and operations.

Duties and Achievements

- I worked on designing and deploying a full devops stack, for developers to git push their Python source code, ending with their code deployment to production Cisco NSO devices. I even had,

on the SFR request, to build from source docker registry it self: SFR needed its CICD platform to be "fully built from source" (docker, registry, etc.), and that, for security constraints.

- I was a CI/CD evangelist on this Cisco NSO project (networks engineers do not have the same culture as Dev Engineers, to say the least). This included introducing and training network engineers on git, and why Gitlab and Github are our everyday Facebook (As I use to say, Facebook is our today's real office)

- I designed git workflows, trained on how to operate Gitlab EE as an infrastructure on premise: software engineers at SFR, were in charge of operating Gitlab EE because their team owned it

- I took a Cisco NSO training session at Cisco, on how to automate bare metal provisioning of Cisco NSO Clusters, in « Issy les Moulineaux » a French city close to Paris.

- With those duties, I worked with more than 100 engineers, coming from 3 different teams: pure Infrastructure team (those who own the OpenStack), software development teams, network engineers team

Tech

- *Devops stack*: Ansible, Docker, Gitlab EE, Jenkins Pipelines, LVM, Cisco NSO, Cisco KUBAM pour le PXEless boot, SSH Bastions.
- *OS*: Windows, Linux CentOS 7
- *Dev stack*: Python 2 Python 3 PyEnv .

> Bosstek

Devops Engineer
04/2018 – 11/2018

Employee at Bosstek, a french consulting SMB, specialized into infrastructure management, that was my first experience in a « Pure Infra » company, and the first time i took that kind of angle into the devops market.

I took part into 3 projects with Bosstek, for 3 different French Customers. This experience was very interesting, for I worked there with people who never ever worked in software development. I would say they were from the « old style » infrastructure world, and that is why i had a lot to learn with them.

Duties and Achievements

- I worked in the core team of projects for huge companies: SOPRA Steria, ENEDIS, and Carrrefour One Cloud, as Devops SME / Cloud Architect.

- I have been Dev Engineers Team Leader At SOPRA STYERAI, where i worked under the authority of David Maurange.
- I also conducted two internal studies about in that company, where i was the only Kubernetes SME:
    - Production grade Kubernetes Cluster Ingress Controller best practices.
    - A proposed solution of system monitoring with Rsyslog/Elastic Stack, (with a focus on CA servers restarts): purpose was to have the company certified as a CA Authority delivering SSL/TLS certificates.
- Working in the Carrefour One Cloud (a project in collaboration with Google), I there discovered for the first time the concept of Headless CMS, with https://strapi.io , and it is the first time I worked on a production grade use of the Gravitee API Gateway.

Tech

- *Devops stack*: Terraform, Ansible, Jenkins Pipline, Docker (docker-compose) , NGINX, Gravitee.io (API Gateway), Keycloak (avec OpenID explicit flow), Kubernetes, ELK.
- *OS*: Linux Debian (pour mon poste de travail, stretch avec GNOME) & Ubuntu Server CI stack: Karma / Jasmine, Jenkins, Maven, Nexus Sonatype, GIT, (toute la stack SAAS bitbucket utilisée par le client), Eclipse IDE
- *Dev stack*: NODEJS, NPM, Angular 5, ReactJS, MongoDB (dans 2 missions de conseils), Jhipster, Jboss EAP .

> Vierling Communication

Java Dev Engineer
02/2016 – 01/2018

Java Dev Enginer at Vierling-Communication, an R&D company of the « Laudren Group » . R&D main

goal was to design and develop an cutting edge network monitoring system.

What was thrilling and extremely interesting in this experience, is that the system did not monitor software, but hardware, and in particular, the system goal mainly was to monitor Fiber Optics and Copper cables failures !

The developed Monitoring system consisted in both hardware and software: pure Linux OS, java and C language.

Duties and Achievements

- I worked on the software part which was the « brain » of the monitoring system: the server that collects all data from distributed systems, analyze them, and manages alerts.
- I strongly advocated CI/CD for tests and deployment automation, and introduced Gitlab Pipelines CI/CD.
- Before my work, a release full test and deployment cycle lasted a full week. After my work, the build and deploy was fully automated into a 7 minutes process.
- I introduced there bare metal provisioning: PXE booted to deploy the whole stack, and i automated all that to be able to run reliable testing. That was my answer to « it is not possible to fully automate our solution deployment ».

- I introduced and convinced of the necessity of Acceptance Tests.
- I developed an authentication module implemented using Jee Listeners and Spring modularization
- I brought in Dockerized deployment, the internal use of Pipelines using Gitlab on premises, the java deployment happening in Jboss EAP (Angular 8/9 + bootstrap Web UI).
- Geolocation of hardware failures, so GIS matters, I introduced Leaflet on the Web UI
- This experience was a turning point for me: That is were I worked months with whom I consider my master as far as *NIX and what OS actually are, a « Linux Wizard » , Eric Lévenez, a man I will always remember.

Tech

- *Physics*: Optics principles for OTDUs
- *Devops stack*: Ansible, PXE boot, PXE boot kickstart installations, Docker, Virtual Box, KVM Virtual Manager, Free IPA Server, SSH / SCP/ WinSCP, with a lot of bin/bashing.
- *OS*: CentOS 6 & 7, Ubuntu
- *CI stack*: Gitlab, Artifactory, MAVEN3 Git, Eclipse JBoss Tools, Jenkins, Checkstyle, JMeter, JUnit, DbUnit, Jasmine + Karma, Wireshark & wireshark dissectors
- *Dev stack*: Java, JCA IronJacamar, JPA, Hibernate, WILDFLY, EJB3 Stateless & MDBs', JAX- RS & Resteasy, Apache Shiro, Leaflet, Angular, Linux Pluggable Authentication Mechanism, mariadb, postgresql/postgis, .Net Windows Service Application component, Visual Studio.

> SPVC Group

IS Architect, IT department founder
06/2013 – 07/2015

SPVC was an SMB of the contruction industry, specialized into fluids.
I designed the first real Information System, conducted and took part in developments of software components required to deliver that first I.S.

I thereafter structured the newly created IT department to be fit for production management.
All in all, this was among my most craziest professional experiences, that made me learn a lot about who i am in the IT industry.

Also my first experience as a pure Software guy, putting his hands unawarely into infrastrucutre.
And finally, this is the point where I started there changing the way i definded my self: at that point, I used to say that i am a « FullStack » Architect.

Duties and Achievements

- The Work began with the design and implementation of a simple utility software, whose goal was to normalize Business Processes, especially for the commercial and build sites managers everyday tasks.
- I then made it production « almost » ready, by adding to it the seed of a DRP. The implemented services were relation to construction project management: Gantt Charts, Tasks Management, reporting.
- A second generation, redesigned IS turned it into a B.A.M. system (Business Activity Monitoring) using:
    - The Acitviti BPMN engine.
    - A JBI ESB coupled to the BPMN engine, SOA architecture (all BPMN execution were invoked through the ESB, using JAX-WS / JAX-RS).
    - 15 users in January 2014, up to 30 end of 2014, then 40 end of 2015.
    - As I first talked of the critical importance of a DRP, i was certainly not realizing how deeply I would dive into infrastructure management...

- I built month weeks after weeks a small team consisteing of 3 to 5 developers and ops, I was the software architect with 2 developers, and manager for the 2 / 3 ops engineers (system engineer, security engineer, network engineer).
- I was personally working on the CI system a classical recipe of Git, Maven, Jenkins (Junit, DbUnit, Mockito, etc...), Artifactory. All classics of that prehistoric times.
- One unthinkable thing happened there, where i lerned a lot about real infratructure , I conducted and designed a full server room: SPVC used on premises servers, the IS being used by employees from their tablets mainly (MTT french trademark Android tablet). A crazy experience where i learned what a datacenter really is, e.g. what material are used on the floor (epoxy) of datacenters, Server Hardware Benchmark, network backbone, DRP with FM200 fire systems, air cooling, electricity etc...

Tech

- *Operational*: Gantt charts, Specific Terms and Conditions documents in building industry (CCTP in French) / Response to tenders (« Réponses à appel d'offres » in French) / supply chain management on a constuction site.
- *Devops stack*: Chef.io, Virtual Box SOAP API, KVM Virtual Manager OS: CentOS 6.x, Ubuntu server
- *CI stack*: Artifactory, MAVEN3 (M2E), Git, Eclipse (eclipse bpmn modeler), Jenkins, Checkstyle, JMeter, JUnit, Mockito, DbUnit.
- *Dev stack*: Spring, JPA, Activiti BPMN engine, petals ESB / JBI java standard, tomcat 7, JAX- WS/ SOAP/ WSDL, JAX-RS, Spring WS, JSF2, Prime Faces, jQuery v2.x.x, JavaMail, Apache James server, Mailets.
- Misc.: FM200 ?

> Atermès Group

Java Dev Engineer
02/2013 – 05/2013

Atermès is a French Company affiliated to Thalès, a player in the military technologies industry.

As Java Dev Engineer, I worked in the R&D department, where i designed and implemented a set of Java JSE6 Swing components, using the Luciad Lightspeed framework (a GIS Framework, very early endowed with 3D capabilities).

It was mainly about Terran elevation analysis, hypsometry in GIS.
Military purpose only.

Duties and Achievements

- designed and implemented a set of Java JSE6 Swing components, using the Luciad Lightspeed framework, and Luciad Lightspeed hypsometric "IndexColorModels".
- I pushed in Junit tesyting, the guys were manily working over there with the well know Qt C++ UI framework.
- I learned for the first time, and a lot about GIS systems:
  - that's after that pro experience, that I got interested into OpenStreetMap, Leaflet, etc.
  - Fundamental knowledge: geoid, reference ellipsoid, reference system, projections, reference point, datum, reference ellipsoid, reference system, projections, reference point, datum, tiles server, "line-of-sights", etc.…

Tech

- *OS*: Windows, sur machines Dell Alienware
- *CI stack*: quasi-empty: Maven + Junit
- *Dev stack*: Swing JSE6, JAXB, Luciad Lightspeed, MVC2 design pattern.
- Misc.: a bit of differential geometry of finite dimensional manifolds.

> Michael Page International

Dev Engineer
01/2012 – 11/2012

At the heart of Michael Page's IT Department (EMEA), I took part in the full revamping of Michael Page's Inforamtion system, along with 10 à 15 Java Dev Engineers, 2/3 IT Architects, QA and ten Business Analysts.

My personal scope was focused on the « backend » part of all software responsible for Candidates Processes Management, including the Candidates Assessment. This was my first professional experience into a major large scale IT Department of an International Corporation.

Duties and Achievements

- In collaboration with IT Architects, and Business Analysts, I designed and implemented the "candidate assessment" components. That made me an SME on the Candidate Assessment functional scope.
- Learned a lot on HR Business Process in the real world
- Classic Java developmen, involving CI, using Maven, JUnit, on premise Nexus Sonatype repo. Some Java dependencies had to be « mavenized », some others already were.
- I took part in a huge Security Operation, because of a discovered major intrusion attack in Michael Page Information System, a long memorable pizza week-end...
- I started there being involved into topics of CICD and it the Infrastructure it relies on.
- I worked on a proposal for using the Fractal Julia Framework to refactor functional units along the IS revamping process.

Tech

- *OS*: Windows
- *CI stack*: Maven, Tortoise SVN, JIRA, Jenkins, Nexus Sonatype.
- *Dev stack*: Tomcat 6, WebLogic 9, struts 1, Taglibs, Spring, hibernate, JUnit, JMX, JAXP, Log4J, Fractal Julia, Javamail.(2011: cf. Mon année de diplôme Architecte logiciel AFCEPF)

{ 2011: I spent one year in a French IT school named « AFCEPF » to get a Software Architect degree}

> Sanofi Aventis

Java Engineer
02/2010 – 12/2010

I was hired as contractor At Sanofi Aventis, R&D, in order to design and develop a software able to collect, and bring up analytics in form of Analitycs Dashboard, in the field of Genetics: The researchers had in mind to try and use Data mining techniques.

The main requirements were:
- The software modularization: It should be easy to add more analysis modules, such as within a plugin model: The researchers wanted the ability to add custom analysis modules on demand.
- Moreover, the plugins must not require any change for deployment, except editing a configuration file, and a restart.

Duties and Achievements

- Java Development, UML analysis,
- MVC2 Architecture model, struts 2, Spring, Hibernate based implementation
- Configuration and Set up of Development environments: Eclipse , Maven, Nexus, SVN Subversion et ses plugins eclipse/tortoise.
- I conducted workshops to train 2 researchers for java development in that framework: they wanted to develop themselves the future analysis models, with the help of other contractyoirs when needed.
- I learned a bit about what epi-genetics is

Tech

- *OS*: Windows
- *CI stack*: Subversion, Tortoise SVN.
- *Dev stack*: Java EE Servlet Containers, Struts 2, Taglibs, Tomcat, Spring, Hibernate, Junit

> CPAM

Java Engineer SME
03/2009 – 11/2009

The "CPAM", is somehow the equivalent of NIH in the USA. I was hired as a contractor, Java technology SME, in a team which was developing a task management and employee assessment software.

That software was made with Java Swing, and called a server using soap webservices (tomcat axis2), and SQL Server Database behind the scene.

All classical public administration needs, nothing fancy.

Duties and Achievements

- UML Use cases based analysis,
- Java Dev (I coded, I always get bored if i do not code), And was required to give my point of view for toics where the team members needed Java Tech expertise.
- I introduced Junit Testing, and the concept of "acceptance tests" mirrored on Use Cases.

Tech

- *OS*: Windows
- *CI stack*: Tortoise SVN, Junit, Ant.
- *Dev stack*: Java Swing, Spring JUnit, Tom, Axis 2,Tomcat, Spring, Hibernate, Junit, Netbeans, Ant

> Mnémosyne

.NET Developer
10/2008 – 12/2008

B2B MNEMOSYNE was a software vendor, which aimed at providing tools for Notaries, and the software had to bee capable of building digital documents recognized by the Law.
I there developed a C# ASP.NET search field auto-completion module.

Duties and Achievements

- I there developed a C# ASP.NET search field auto-completion module, searched data were archived files and customer data.
- I autonomously learned on the Telerik Ajax Framework for ASP.NET.

Tech

- *OS*: Windows
- *CI stack*: empty
- *Dev stack*: Visual Studio, C# .NEt, ASP .NET Ajax, Telerik ASP.NET framework.

> Ascott

Java & .Net Developer
06/ 2008 – 07/ 2008

Ascott was a French SMB consulting company, my first employer.
I worked for their main customer: the french SCOR corporation, which plays into a very specific financial filed: reinsurance.

I there completed a few minor small ASP.NET development tasks, and spent most of my time implementing reports to be executed in Crystal Report, in a Business Intelligence Project.

Duties and Achievements

- Design / Configuration of « Crystal Report » reports (SQL queries + report formatting), Information System integration, in collaboration with other consulting companies employees. Reports were integfrated with Business I ntellign ece processing made by « SIMCORP Dimension »
- Developed a few ASP.NET pages using ADO.NET and specific ODBC driver to go and get data in a very old kind of Database named « Ingres »,
- I learned about IFRS standards, what is business intelligence, what reinsurance business is.

Tech

- *OS*: Windows
- *CI stack*: empty
- *Dev stack*: Crystal Reports XI for the BI project, ASP .NET ADO.NET, and IngresDB for the .NET project.

Education

2011	Software Architect Engineer Degree	AFCEPF, http://www.afcepf.fr/
2007	2 years Degree in IT engineering	AFPA Paris, https://www.afpa.fr/
2001	DEUG MIAS (Mathematics under graduation)	Paris 6 University, http://www.upmc.fr/en/
1999	DEUG SCVT, (Biochemistry under graduation)	Paris 6 University, http://www.upmc.fr/en/

Languages

Fluent English, school level German, a few words of Bulgarian, souvenirs of classic Ancient Greek.

And...

Jogging, trekking, fencing (sword, saber), trout fishing. An Trout Fishing, plus a bit of Trout Fishing (I LOVE Trout fishing:))