Nicolas Maupu

SRE/DevOps, Kubernetes, Go and cloud expert

Freelance *- 16+ years of experience*
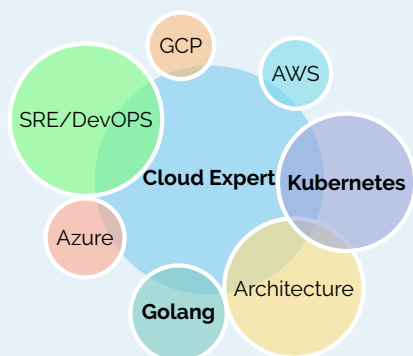
About me

- Nicolas Maupu
- French
- 1982
- Paris

Languages

French	C2	mother tongue
English	C1	● ● ● ● ○

Interests

GCP · AWS · SRE/DevOPS · **Cloud Expert** · **Kubernetes** · Azure · **Golang** · Architecture

Skill highlights

Clouds and containerization

Kubernetes	● ● ● ● ○
Amazon AWS	● ● ● ○ ○
Google GCP	● ● ● ● ○
Cloudflare	● ● ● ● ○
Microsoft Azure	● ● ● ● ○

Infrastructure as Code

Git	● ● ● ● ●
GitOps	● ● ● ● ○
Terraform	● ● ● ● ○
Ansible	● ● ● ● ○

Monitoring

Prometheus	● ● ● ● ○
Thanos	● ● ● ● ○

Systems & Languages

Golang	● ● ● ● ○
Python	● ● ● ○ ○
Bash	● ● ● ● ○
GNU/Linux	● ● ● ● ○

PROFESIONNAL OBJECTIVE

Kubernetes and cloud expert with 16+ years of experience in designing and managing highly available and scalable production platforms. Looking for an opportunity to join the chess industry to ally my passion for the game and my professional life. Passionate about technology, I am excited to use all my knowledge to help you thrive.

LATEST EXPERIENCES AT A GLANCE

Oct. 2021 – Jan. 2023 — **Sonepar** · Freelance · Paris (Remote) 📍
Prepared and implemented a multi-tenants **Kubernetes** architecture (Azure) for all Sonepar entities to allow homogeneous deployment of company's assets.

Aug. 2019 – Sept. 2021 — **e.Voyageurs SNCF** · Freelance · Lille (Remote) 📍
Implemented an "on-demand" **Kubernetes** stack (AWS) to conduct a smooth migration of all SNCF components to AWS.

Nov. 2017 – Aug. 2019 — **Ritmx** · Freelance · Paris (half remote) 📍
Created and led a team responsible for implementing a **Kubernetes** infrastructure (GCP, on-prem) and led the migration of all existing Java applications to it.

Sept. 2016 – Oct. 2017 — **Mirakl** · Freelance · Paris 📍
Developed a **Kubernetes** platform (AWS) and migrated all applications to it with automated and continuous deployments.
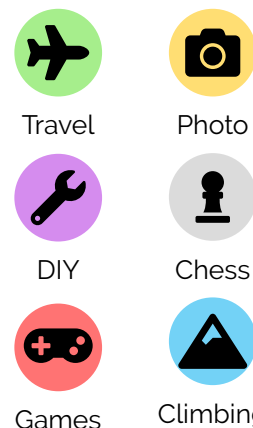
DEGREES

2007 — **Master** Analyses des Systèmes Stratégiques
Awarded with high honours – Versailles

2003 — **DUT** Génie informatique
Awarded with honours – Vélizy

2001 — **Bac général** Série S, spécialité mathématiques
Déville-les-Rouen

MISCELLANEOUS

- **2013** (7 months), **2016** (7 months) and **2023** (7 months): Travel around the world.
- Open source projects and experimentations:
  - *vault-secret* creator (Kubernetes operator (Go) to inject secret resource based on Hashicorp Vault)
    https://github.com/nmaupu/vault-secret
  - *freenas-provisioner* creator (Kubernetes operator (Go) to dynamically provision a NFS volume from a freenas instance)
    https://github.com/nmaupu/freenas-provisioner
  - Reverse engineering work on iOt devices
    https://github.com/nmaupu/yokis-hack
    https://tinyurl.com/hackaday-yokis-hack

HOBBIES

- Travel
- Photo
- DIY
- Chess
- Games
- Climbing

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DETAILED WORK EXPERIENCES

Oct. 2021
Jan. 2023

Sonepar – Freelance · Paris (Remote) 📍

Prepared and implemented a multi-tenants **Kubernetes** architecture (Azure) for all Sonepar entities to allow homogeneous deployment of company's assets.

- Automatized and deployed Kubernetes clusters (AKS) to host applications (Java microservices and NodeJS).
- Massive and systematic use of the Operator Pattern https://kubernetes.io/docs/concepts/extend-kubernetes/operator.
  - Created a REST API (Go) to inventory and manage deployments of infrastructure components (using Custom Resources for storage).
  - Deployments managed by ArgoCD and CI/CD.
  - Created various operators based on this API.
- Managed and resolved performance issues with related teams.
- Set up a log stack (Azure → Kafka → Fluentd → Splunk).
- Set up a highly available monitoring stack agnostic from the platform (Prometheus, Thanos, Alertmanager).
- Prepared multi-clouds deployment with GCP (network and agnosticity of Azure components)

Sonepar — Powered by Difference

Kubernetes · Azure · GCP · AKS · GKE · IaC · Golang · ArgoCD · Terraform · Velero · Prometheus · Thanos · GNU/Linux

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Aug. 2019
Sept. 2021

e.Voyageurs SNCF – Freelance · Lille (Remote) 📍

Implemented an "on-demand" **Kubernetes** stack (AWS) to conduct a smooth migration of all SNCF components to AWS.

- Use of the Operator Pattern when relevant.
- Created a REST API (Go) to request the creation of new namespaces into clusters (DynamoDB backend).
- Created an operator (Go) listening this API and taking action on several events.
- Clusters managed as code with GitOps/FluxCD.
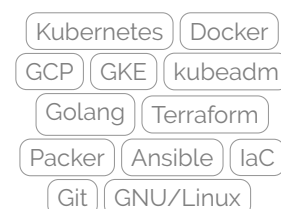- AWS assets managed with Terraform.

eVoyageurs SNCF

Kubernetes · Docker · Terraform · AWS · EKS · IaC · Golang · GitOps · FluxCD · Datadog · Velero · GNU/Linux

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Nov. 2017
Aug. 2019

Ritmx (SNCF company) – Freelance · Paris (half remote) 📍

Created and led a team responsible for implementing a **Kubernetes** infrastructure (GCP, on-prem) and led the migration of all existing Java applications to it.

- Supervised project teams.
- Designed and implemented on-premises and GKE Kubernetes clusters using Terraform, Packer, and other tools.
- Prepared a unified inter-team deployment pipeline for delivering on Kubernetes.
- Managed secrets using HashiCorp Vault.
- Transitioned to Spring Cloud Config for managing application configurations.

Ritmx — PARTENAIRE DE VOTRE MOBILITÉ

Kubernetes · Docker · GCP · GKE · kubeadm · Golang · Terraform · Packer · Ansible · IaC · Git · GNU/Linux

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Sept. 2016
Oct. 2017

Mirakl – Freelance · Paris 📍

Developped a **Kubernetes** platform (AWS) and migrated all applications to it with automated and continuous deployments.

- Implemented Kubernetes clusters to ensure the platform's future (migrating from mono-tenant to multi-tenant microservices (Java)).
- Containerized applications, logs handling (fluentd), etc.
- Deployed the entire infrastructure using Terraform and Ansible.
- Cultivated a DevOps best practices culture and continuous deployment awareness within teams operating in a microservices environment.
- Maintained operational conditions, optimizing performance, conducting profiling, and scaling as needed.

MIRAKL

Kubernetes · Docker · AWS · GCP · Terraform · Packer · Ansible · Golang · IaC · Git · GNU/Linux

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Sept. 2013
Feb. 2016

and

May 2012
Feb. 2013

Orange Vallée (Orange group) – Freelance · Châtillon (Haut-de-Seine) 📍

Responsible for the technical management of the infrastructure for the Libon project at *Orange Vallée*, with a specific focus on the Java/JEE backend. Two distinct roles:

1. Ensured the operational stability of the Libon application (on-call duties, handling production incidents, performance enhancements, etc.).
2. Managed the build and strengthened the infrastructure, ensuring scalability of existing and future components, standardizing and creating sustainable inter-team processes.

Led projects on the following topics:

- Architecture design for the Java/JEE components.
- Datacenter migration (Java/JEE foundation, system, storage, and hardware).
- Process industrialization and standardization (Puppet for infrastructure build and Python with Fabric framework for apps' deployment).
- Overhauled the monitoring/metrology system.
- Acted as a technical expert in the following areas: Java/JEE and JVM tuning, Puppet, SSL, storage (iSCSI SAN), GNU/Linux. Advocated for best practices in these domains.
- Operated in a DevOps environment and followed DevOps methodologies.

architecture · Apache · Tomcat · BigIP · SAN · python · puppet · foreman · Shinken · Grafana · Kibana · Elasticsearch · Git · IaC · GNU/Linux

June 2011
May 2012

Excilys Group · Cachan (Haut-de-Seine) 📍

Managed the evolution of the outdated internal infrastructure of the Excilys Group.

- Selected the solution (VMware) and hardware (Dell m1000e blades chassis, PowerVault iSCSI SAN).
- Led the project and provided training on VMware and Dell hardware.
- Designed the architecture, conducted technical and budget validation.
- Implemented the solution (installation, monitoring, backups, deliveries, etc.).

VMware · CentOS · Tomcat · Apache · JBoss · MySQL · Git · SAN
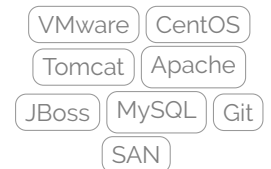
June 2010
June 2011

Fia-Net / Excilys consulting · Paris 📍

Designed and implemented a highly available virtualized architecture to host the Kwixo application (peer-to-peer money transfers and online payments).

- Designed and implemented the architecture (Solaris 10 and zones, Apache Tomcat).
- Managed application delivery processes with a focus on standardization and industrialization.
- Deployed and configured monitoring and backups. Handled performance improvements (JVM tuning).
- Enacted a DevOps approach.

CentOS · Solaris 10 · Apache · Tomcat · Java/JEE · ActiveMQ · CouchDB · Centreon · Nagios · Git

May 2007
June 2010

Excilys Group · Cachan (Haut-de-Seine) 📍

Various missions, including:

- Managed Excilys and Capico (the group's e-learning application in JEE) infrastructures on an Apache stack (*mod_jk*), *JBoss*, and *MySQL*.
- Trained other Excilys group consultants on various topics (systems and networks, monitoring, virtualization, JVM profiling, Tomcat, and Apache).
- In 2009: mission at Weldom (Leroy Merlin group) to design and implement a highly available virtualized architecture (*OpenVz*) for hosting and maintaining store order management applications.
- Various ad-hoc missions for analyzing JVM performance issues (HotSpot) in Java applications.

Tomcat · Apache · JBoss · Java/JEE · JMX · OpenVz · Nagios · Zabbix · JMeter

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