

Founder of Revolight AB

# Kalilou Diaby

[kalilou@revolight.io](mailto:kalilou@revolight.io) - +46733262575  
Solna, Stockholms län - Sweden

**Married and family of four members, me, my wife  
and two lovely daughters aged respectively 8 and 6 year.**

Sr. software and Infrastructure/DevOps engineer with a strong backend focus and advanced skills in leading-edge programming tools in conjunction with the ability to familiarize, assimilate and dive into new technologies. Kalilou has a lot of experience in the various steps of building an application, everything from creating an IT architecture to the actual implementation. His way of working is characterized by deep commitment and a goal and solution oriented mindset. He is particularly strong when working towards predefined goals and deadlines, preferably in heterogeneous groups where he can take a lot of responsibility and initiative. He is also eager to learn new things, even if it isn't related to the specific focus area of his work

## EXPERIENCE

DevOps Engineer & Strategist  
Cloud Strategist & Architect  
Cloud Developer  
Cloud Governance  
Infrastructure Architect  
Automation Engineer  
CI/CD Engineer  
FullStack Developer  
Backend Developer  
FinOps & Cloud governance

## COMPETENCE

DevOps, Cloud architecture,  
Cloud migration, Automation,  
Software development, Cloud  
infrastructure, CI/CD, Database  
Administration, Architecture  
Software Design and  
Quality Assurance  
Systems Administration  
Systems Integration  
FinOps

## INDUSTRY EXPERIENCES

Telecom, Media  
e-commerce, Energy, Gaming  
Public Sector, transportation

## LANGUAGES/ FRAMEWORKS

Python, Ruby, Go, C/C++,  
Java, .Net, Pyramid, Flask  
J2EE, JavaScript, Angular,  
React, SQL, SpringBoot, Requir  
eJS, Bootstrap, Jinja2, Bash.

## LANGUAGES

French, English, Swedish

## DOCKER ORCHESTRATION

Kubernetes, Azure AKS, AWS EKS,  
Google GKE, Swarm, Docker  
Compose.

## SERVER CONFIGURATION MANAGEMENT

Chef, Puppet, SaltStack, Ansible,  
AWS OpsWork.

## CONFIGURATION MANAGEMENT

GIT, BitBucket, GitLab, Perforce,  
Stash, Jenkins, Teamcity,  
Bamboo.

## DATABASES

PostgreSQL, Oracle, MySQL,  
MariaDB, MSSQL, SQLite,  
CouchDB, DocumentDB,  
MongoDB, Amazon RDS,  
Cassandra, Amazon DynamoDB,  
Redis

## TESTING

Gatling, Jmeter, Cucumber, Lettuce,  
Capybara, Nosetests, JUnit,  
Selenium.

## CLOUD

Amazon Web Services (AWS), Microsoft  
Azure, Google Cloud Platform (GCP),  
VMware Cluster (Vsphere)

## OTHER

Docker, Spinnaker, LetsEncrypt, easy-rsa,  
Github, BitBucket, Gitlab, Jira,  
Confluence, Stash, OpenVpn, Vagrant,  
Packer, Nomad, Vault, Perforce, Kanban,  
Scrum, Cloudability.

## INFRASTRUCTURE As CODE

Terraform, AWS CloudFormation, Ansible,  
SaltStack

## EDUCATION

Computer Sciences, Stockholm University

## CERTIFICATION

AWS Solution Architect - Associate  
AWS DevOps - Professional  
AWS Developer - Associate  
AWS SysOps Administrator - Associate  
FinOps practitioner

## ENTERPRISE ARCHITECTURE

TOGAF, ArchiMate

# Selection of qualifications

# Lead FinOps & Cloud Governance

SINCH AB - STOCKHOLM NOV 2020 - PRESENT

Sinch AB is a cloud-based, CPaaS platform that provides companies with Voice, Verification, Video, SMS capabilities.

Kalilou is taking part of Sinch AB reorganization process, Sinch has been acquiring multiple companies over the years and this reorganization is about taking an important leap into unified all Sinch Companies as a whole. First, Kalilou is laying out a plan to centralize and unify all cloud providers including AWS, GCP and Azure in terms of governance, compliance and security as well as incorporating the cloud financial management aspect into the new organization.

Kalilou was one the main persons to start helping shape the new FinOps and cloud governance team during the Sinch new organization structure and was one of the core contributors into setting the first building blocks/Foundation of this new team.

Kalilou is involved in establishing a cloud strategy to guide Sinch not only to reduce cost while migrating or using different vendors but most importantly to weigh up the benefits and conduct risk management.

Kalilou is involved with the Sinch AWS dedicated team(TAM, Account manager, AWS SAs and other) on the bi-weekly to highlight different aspects of the Sinch cloud roadmap as well as setting the stage for wider discussion which often involve several stakeholders.

Kalilou helps Sinch assess different FinOps tools including Cloudability and CloudHealth and Cloudability was adopted in which Kalilou acts as Cloudability owner within Sinch, helps onboarding Sinch accounts into cloudability as well as onboarding different Sinch stakeholders into cloudability. Kalilou is also making sure the different team with the FinOps showback model has access to their respective costs in cloudability in a more structured and comprehensive way.

FinOps being a cultural transformation, Kalilou in order to reach out to the wider audience within Sinch, Kalilou and team has come up with a process so-called gameday which is organized with different team where team will go through the workshop covering FinOps foundation as well as hands-on session which the team to one understand FinOps and how to practice it, hence achieving the cultural transformation.

Kalilou being a problem solver, is helping the FinOps team today have everything automated, from vendor accounts creation through the account vending machine to setting different guardrails, even cloudability today is being automated via their API meaning managing cloudability is being done via the team CI/CD pipeline.

Kalilou is also part of the FinOps foundation and holds a FinOps certification. In nutshell, Kalilou is part of the pillar helping Sinch with their FinOps journey, and the team today since 2020 is now core to the Sinch organization.

Thanks to Kalilou today Sinch has a better understanding on their infrastructure operation costs (showback) as well the chargeback process. More important to get to a Nirvana state, Kalilou is now helping with the process of establishing the Unit of Economic for Sinch.

**TECHNOLOGIES:** AWS, GCP, Azure, Cloudability, Prisma Cloud, DevOps principles, Kubernetes, Jira, Scrum, Gitlab CI/CD, Git, Terraform, ISO27001, Python, FinOps foundation.

# Project Owner/Technical Lead

SINCH AB - STOCKHOLM JAN 2020 - OCT 2020

Sinch AB is a cloud-based, mobile communications platform that provides companies with Voice, Verification, Video, SMS capabilities.

Kalilou joins as consultant for helping achieve the different OKR (Objectives and Keys Results) set as the company level goals. Those OKRs involve system stability, Sinch ISO 27001 certification and a complete migration of Sinch AB onpremise to AWS.

With Kalilou help, Sinch is now ISO 27001 certified and Sinch has now a stable unified, stable, resilient and centralized logging system which underwent a complete re-architecturing. At the moment Kalilou as the owner of the migration to AWS project is supervising, planning and executing the implementation of the different tasks of the migration.

Kalilou as project owner for the onpremise migration to the cloud, Kalilou is making sure the last milestone of the onpremise service is migrated by Q3 next year.

**TECHNOLOGIES:** AWS, Saltstack, Jira, Scrum, Octopus, TeamCity, Git, Terraform, Elasticsearch(ELK), Datadog, OP5, Grafana, ISO27001, Docker, Docker Swarm, Docker Compose, Dell iDRAC monitoring, SNMP, Python, Cassandra, Logstash, Filebeat, Python

## LEAD DEVOPS & CLOUD ENGINEER

STOCKHOLMS LOKALTRAFIK (SL) - STOCKHOLM SEP 2018 - DEC 2019

SL works to offer affordable public transport with good capacity and quality in the Stockholm region. They work to propose and implement regional public transport solutions to facilitate commuting and simplify everyday life for everyone in the Stockholm region. SL is building a new ticketing system platform based on the modern principle in mind.

Kalilou joins SL as DevOps/Cloud Engineer and is responsible for SL cloud adoption roadmap. With Kalilou help, SL has a stable cloud architecture with security, scalability, flexibility, reliability, availability and cost optimization in mind. Kalilou has been in the front line setting up the entire automation, monitoring, logging, CI/CD and security compliance at SL. Thanks to Kalilou, SL now has started with the DevOps cultural transformation within the team and within the entire organization. With Kalilou's contribution SL now has dockerized all applications which now run on kubernetes in the Cloud and SL can now perform a rolling deploy within 10 minutes compared to weeks taken to deploy on premise prior to him joining SL.

**TECHNOLOGIES:** Jenkins (pipeline), Bamboo, Kubernetes, Docker, DevOps cultural transformation, AWS, Artifactory, Maven, Java SpringBoot, Ansible, Gradle, Sonar, MySQL NDB cluster, F5 loadbalancer, Grafana, Kibana, LetsEncrypt, Prometheus, PostgreSQL, Terraform, Python, NBD backup/restore, ElasticSearch, Hashicorp Vault (secret management), Java, Node.js, CentOS 7, C/C++.

# DEVOPS ENGINEER & SUPPORT

**KFZTEILE24 GMBH - BERLIN JUL 2018 - AUG 2018**

Kfzteile24 is an international webshop for all kinds of car parts. The online shop is one of the biggest of its kind and the market leader for car parts in Germany.

Kalilou joined Kfzteile24 for a firefighting mission of two weeks to help Kfzteile24 with their automation, logging, monitoring, CI/CD so they can meet their deadline to release their product in the Austrian Market.

Kalilou supports the team with related DevOps topics/questions within AWS.

**TECHNOLOGIES:** AWS, Prometheus, Grafana, Docker, AWS Fargate, AWS CodePipeline, AWS CodeCommit, RabbitMQ, Gopass

# LEAD CLOUD STRATEGIST - AWS BEST PRACTICE

**SINCH AB - STOCKHOLM JAN 2018 - MAY 2018**

Sinch AB is a cloud-based, mobile communications platform that provides companies with Voice, Verification, Video, SMS capabilities. In their migration journey to AWS, Sinch became aware of the importance of AWS best practices to be implemented. The project consists of designing and implementing AWS best practices.

Kalilou helps design and implement best practices around security, compliances and cost optimisation. Kalilou has designed and implemented best practices for Sinch AWS Identity Access Management. Kalilou also helps Sinch establish their cloud resources compliances which gives Sinch a proactive approach to mitigate all resources not meeting the compliance requirements.

Kalilou was a Sinch AB GDPR representative within the CLX organization committee and helped Sinch become GDPR compliant by setting processes in place with regards to the GDPR articles. Aside from being cloud strategist, Kalilou helps migrating by rewriting all Sinch on premise hardware monitoring to DataDog. He also helps save cost by 100% by implementing Sinch Elasticsearch security as well as fully automating Elasticsearch clusters using SaltStack.

**TECHNOLOGIES:** AWS, Saltstack, TeamCity, Git, Terraform, Elasticsearch, Datadog, OP5, Grafana, GDPR, Docker, Docker Swarm, Docker Compose, Dell iDRAC monitoring, SNMP, Python, Cassandra

# LEAD DEVOPS ENGINEER

**STARSTABLE - STOCKHOLM AUG 2017 - SEPT 2017**

StarStable is an online 3D game world built specially for those with a passion for horses and adventure. It is an MMORPG (Massively Multiplayer Online Role Playing Game) with over 6 million users in 182 countries.

unetlight

StarStable was moving away from an old traditional build system which was taking more time and involving considerable human manual interaction. The project consists of building a new CI/CD tool with modern principles in mind which will reduce build/deployment time as well as remove all human interaction.

Kalilou joined the project as a senior DevOps engineer and was responsible for setting up the new build environment from scratch which involved first automating the environment in AWS as infrastructure as code (Jenkins master, Jenkins agents, setting up Jenkins data daily backup, monitoring, restoring backup, creating AWS EC2 AMI created through code). Once that was done, Kalilou moved on to the second step which was to migrate all build jobs from the old build environment to the new Jenkins. Kalilou has setup the Jenkins shared library which allows in the Jenkins file to call the predefined steps provided by the shared library.

**TECHNOLOGIES:** C/C++, CMake, Python, AWS Services, Jenkins, Perforce, Troposphere, AWS, Groovy, Centos 7, Git, Windows Server, Confluence, Jira, MacOX build environment.

## LEAD DEVOPS & CLOUD STRATEGIST & EDUCATOR

**FORTUM - STOCKHOLM NOV 2016 - AUG 2017**

Fortum is a leading clean-energy company developing and offering solutions for their customers in electricity, heating, cooling, as well as solutions to improve resource efficiency. They provide services for the power generation industry and solutions for consumers so that they can be smarter in their energy choices.

Kalilou joined Fortum IoT as senior DevOps lead engineer and cloud lead strategist. Kalilou was overseeing all aspects of DevOps and Cloud adoption. The project consisted of establishing an accelerated roadmap for their cloud adoption as well as fully migrating all on- premise applications to the cloud.

Kalilou as cloud lead engineer helped Fortum IoT (Fortum Tingcore former name) established an accelerated cloud adoption roadmap which consists of determining an estimated cost of cloud resources required, designing and implementing the AWS architecture based on resiliency, security, scalability, availability, reliability, flexibility and cost optimisation). Kalilou made sure all resources in AWS are created/managed in an automated manner. Kalilou was responsible for setting up in place a knowledge sharing strategy through workshops involving all teams extending their knowledge on the AWS cloud platform.

Migrating all on premise applications to the cloud required having in place a modern CI/CD tool. Kalilou helps setup Jenkins which was also automated through infrastructure as code. Jenkins as CI/CD was setup with a modern process in mind by making use of the Jenkins pipelines. Kalilou started off writing a shared library which contains reusable steps which in turn allows developers to write their own Jenkins files in a more flexible way by using the reusable steps or extending them.

Kalilou was leading the knowledge sharing within the team by holding workshops. Kalilou helps educate and assist the remote site team on how to dockerized the on premise applications as well as how to write the Jenkins files for deploying their application to the cloud. Kalilou was actively involved in Fortum potential candidate interviews as well as employees on-boarding. Kalilou helps refactored a number of on premise applications for the cloud migration which were not adapted to the cloud.

**TECHNOLOGIES:** AWS, CassandraDB, MongoDB, Jenkins, PostgreSQL, Docker, SQL Server, ActiveMQ, MariaDB, Chef, RabbitMQ, Ansible, Bitbucket, JIRA, Confluence, Git, Python, OpenVPN, Java, Groovy, Rake, Ruby, NodeJS, Troposphere, JavaScript, Bootstrap.JS, Centos 7, Windows, SpringBoot

# SENIOR DEVOPS & SOFTWARE ENGINEER

SCHIBSTED - STOCKHOLM DEC 2015 - NOV 2016

Schibsted Classified Media (SCM) is an international media group with 6800 employees in 30 countries that is a leading business worldwide in online classifieds. Tripwell Sweden AB, a sister company decided to move all its on-premise platforms (QA and Production environments) to the cloud, and AWS had been chosen as the cloud provider with Kalilou help. The project was about moving all on premise to AWS in conjunction with setting up CI/CD.

Kalilou joined the project as a DevOps and backend engineer and was responsible for designing a scalable, reliable, resilient and secure cloud infrastructure in conjunction with estimating the total cost of AWS resources bill prior to the migration. Kalilou was also responsible for provisioning and maintaining the AWS resources and setting up the CI/CD environments, VPN, SSL/TLS, local RPM repo, local Pypi server and so on in an automated manner(IaC). Kalilou was also responsible for documenting and conducting workshops and through this process, conveyed his knowledge to the rest of the team.

Tripwell did not have a reliable Server Configuration Management which was a fundamental component required for provisioning the servers correctly. Kalilou got the responsibility to set up a CHEF server, writing and testing all the CHEF components (Cookbooks, databags, recipes and so on) which was later used to provision the new QA, build and Stage environments in the Vsphere. Furthermore, Kalilou was responsible for setting up CloudFormation (Infrastructure as Code) to correctly provision all AWS resources. Kalilou has also used CHEF and CloudFormation to perform a quick test of the Tripwell platform on AWS by making sure some of the cloud benefits are taken by the application such as Scalability, Operational cost- OPEX, Resiliency and cloud security. During this project, Kalilou was also responsible for some major upgrades (from Centos 6 to Centos 7 and from PostgreSQL from 9.2 to 9.5)

**TECHNOLOGIES:** AWS, Chef, Ansible, Jenkins, NGINX, PostgreSQL, Fabric.io, OpenVPN, Git, GitHub, LetsEncrypt, CouchDB, Python, Ruby, Node.js, Solr, JIRA, Confluence, Stash, New Relic, Celery, Redis, Vagrant, CentOS, VMware, Pulp.

## BACKEND DEVELOPER

SCHIBSTED - STOCKHOLM MAR 2013 - DEC 2015

Schibsted Classified Media (SCM) is an international media group with 6800 employees in 30 countries that is a leading business worldwide in online classifieds. SCM started working on a project called Tripwell Sweden AB. Kalilou joined SCM when Tripwell Sweden AB was not yet an official organization on its own. The project was about to implement the core functionalities and launch the beta version.

Kalilou as a backend engineer was responsible for designing and implementing the Tripwell main product. Since Tripwell was still at the beta version, Kalilou mainly worked on all components from backend to frontend. Kalilou implemented third-party integration such as Trustly payment solution, Zendesk, SMS provider Twilio, Transifex, Blocket and so on. Kalilou has worked intensively on the core of the backend such as database design and implementation, email and sms notification, translations (Internationalization and localization), Search Engine, Integration and performance testing, code review, planning, workshops.

With Kalilou's help, Tripwell beta completion was a success and Kalilou helped Tripwell ongoing with the main product development lifecycle.

**TECHNOLOGIES:** CouchDB, Redis, Pyramid Web Framework, PostgreSQL, Python, Celery, Solr, Bootstrap, Rake, JavaScript, Jinja2, RequireJS, Git, functional tests, Centos 6/7, Stash, Rackspace, VMware Vsphere, Crucible, JIRA, Twilio, Zendesk, Mixpanel, Transifex, Google Analytics.

# CO-FOUNDER/FULLSTACK DEVELOPER

**EDUTECH - STOCKHOLM JUL 2012 - NOV 2012**

Edutech was a startup intending to facilitate the real time interactions between, and amongst, teachers and students. Kalilou as fullstack developer and tech lead was responsible for the platform architecture, database design and implementation. Kalilou was also responsible for the application stack and was involved in the mobile development.

With Kalilous help, Edutech successfully implemented a prototype, which was later used in the pitch presented to investors.

**TECHNOLOGIES:** NoSQL, JSP, Google datastore, Android, Java, Google app engine, Eclipse, Cloud, Android SDK.

# ADSL ANALYST

**SOTELMA - BAMAKO AUG 2010 - SEP 2010**

Sotelma is a private telecommunications company in Mali. The company is based in Bamako. Sotelma provides local telephony, international telephony, internet service and mobile telephone service, etc. Its mobile service subsidiary is Malitel. It is also the official registry of the ml country code domain.

Kalilou was responsible for analyzing ADSL network, Protocols, and architecture as well as analyzing the different constraints on the implementations and installation problems. With Kalilou's help, Sotelma has now a better and more efficient process of installing and configuring ADSL technology at the client.

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**TECHNOLOGIES:** ADSL network, Point-to-Point over Ethernet (PPPoE), Point-to-Point Protocol over ATM (PPPoA), TCP/IP, ADSL Protocols, ADSL architecture, OSI Model, Asynchronous Transfer Mode (ATM)

## AWARDS

**2015** Schibsted Hackathon winner

**2012** The Swedish Institute Scholarship for my master in Information System Management at Stockholm University

**2011** Malian Education Minister Scholarship for my exchange study in Stockholm University

**2007** Moroccan scholarship for my university studies in Morocco