

Kalilou Diaby

kalilou@revolight.io - +46733262575

Solna, Stockholms län - Sweden

EXPERIENCE

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

Senior Software and Infrastructure/DevOps Engineer with a strong focus on backend development and expertise in modern programming tools. Kalilou quickly adapts to new technologies and has extensive experience across all stages of application development, from IT architecture to implementation. Known for his dedication and results-oriented mindset, he consistently meets deadlines and thrives in diverse team environments. Kalilou takes initiative and is always eager to expand his knowledge, even beyond his primary area of expertise

COMPETENCE

DevOps, Cloud architecture & migration, Automation, Software development, Cloud infrastructure, CI/CD,, Architecture
Software Design, FinOps

INDUSTRY EXPERIENCES

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

LANGUAGES/ FRAMEWORKS

Python, Ruby, Go, Java,
Pyramid, Flask, JavaScript,
Angular,SQL, SpringBoot,
Jinja2, Bash.

AWARDS

2015 Schibsted Hackathon
winner

2012 The Swedish Institute
Scholarship master studies

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

2007 Moroccan scholarship
for my university studies in
Morocco

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, GitHub, Bamboo,
Perforce.

DATABASES

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

CLOUD

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

OTHER

Docker, Spinnaker, Jira, Confluence,
Stash, OpenVpn, Vagrant, Packer,
Nomad, Vault, 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

LANGUAGES

French, English, Swedish

Selection of qualifications

Lead FinOps / DevOps / Cloud Governance

SINCH AB - STOCKHOLM FEB 2021 - PRESENT

Sinch AB is a cloud-based CPaaS platform providing voice, verification, video, and SMS services. Kalilou is actively involved in Sinch's reorganization process, which aims to unify all Sinch companies after years of acquisitions. He is leading efforts to centralize governance, compliance, and security across cloud providers like AWS, GCP, and Azure, while integrating cloud financial management into the new structure.

Kalilou has been instrumental in shaping the new FinOps and cloud governance team, helping to establish its foundational processes. He is also developing a comprehensive cloud strategy focused on cost reduction and effective risk management.

He collaborates closely with the Sinch AWS team, including TAMs and solutions architects, in bi-weekly meetings to discuss key aspects of the cloud roadmap and facilitate broader stakeholder conversations.

Additionally, Kalilou assessed various FinOps tools, leading to the adoption of Cloudability. As its designated owner, he manages onboarding and ensures stakeholders have clear access to cloud costs. He has implemented a FinOps showback model for greater cost visibility.

To promote cultural transformation, Kalilou and his team developed a "gameday" process, engaging teams in workshops that cover FinOps fundamentals and practical application.

A problem solver, Kalilou has automated the entire FinOps workflow, including vendor account creation and Cloudability management through CI/CD pipelines. He is also a certified member of the FinOps Foundation and has played a crucial role in Sinch's FinOps journey since 2020. His work has improved the company's understanding of infrastructure operating costs, and he is currently focused on establishing a Unit of Economic model to achieve optimal financial operations.

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

Project Owner / Technical Lead / DevOps

SINCH AB - STOCKHOLM JAN 2020 - JAN 2021

Kalilou joined Sinch as a consultant to help the company achieve three major OKRs (Objectives and Key Results) at the company level: restructuring the entire logging system (for both application and system logs), migrating Sinch's on-premise infrastructure to AWS, and attaining ISO 27001 certification.

With Kalilou's expertise, Sinch now has a unified, resilient, and fully automated centralized logging system, following a complete re-architecture and re-implementation. In addition to leading DevOps and cloud architecture, Kalilou took on the role of project manager and technical lead for the on-premise migration to AWS. He ensured that every milestone was met, while also optimizing costs by leveraging AWS MAP (Migration Acceleration Program) incentives, which reduced migration expenses.

Beyond simply performing a "lift and shift" migration, Kalilou applied his experience to assist in re-platforming efforts, refactoring application code to adopt a microservices architecture using Docker containers. He also implemented a full CI/CD pipeline, ensuring seamless deployment of applications from testing to staging and into production environments.

Thanks to Kalilou's contributions, Sinch successfully achieved these key OKRs. Additionally, the company now benefits from alignment with AWS best practices, including AWS Landing Zone, account consolidation, centralized networking, and large-scale automation, which laid the groundwork for Kalilou's next role as a FinOps engineer.

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

LEAD DEVOPS & CLOUD ENGINEER

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

SL, the public transport authority for the Stockholm region, strives to provide affordable, high-capacity transport solutions to improve commuting and simplify daily life. SL is currently building a new ticketing system platform based on modern principles.

Kalilou joined SL as a DevOps/Cloud Engineer, tasked with creating the cloud adoption roadmap from the ground up. With his guidance, SL now has a stable cloud architecture focused on security, scalability, flexibility, reliability, availability, and cost optimization. Kalilou has been instrumental in setting up automation, networking, monitoring, logging, CI/CD pipelines, and security compliance.

Kalilou also helped initiate SL's DevOps cultural transformation, both within the team and across the organization. With his efforts, all applications have been containerized using Docker and now run on Kubernetes in the cloud. As a result, SL can deploy updates in just 10 minutes, compared to the weeks required for on-premise deployments before Kalilou's involvement.

TECHNOLOGIES: Jenkins, Bamboo, Kubernetes, Docker, DevOps cultural transformation, AWS, Artifactory, Maven, Java SpringBoot, Ansible, Gradle, Sonar, MySQL NDB, F5, Grafana, Kibana, LetsEncrypt, Prometheus, PostgreSQL, Terraform, Python, Elasticsearch, Hashicorp Vault, Node.js, CentOS 7, C/C++.

DEVOPS ENGINEER & SUPPORT

KFZTEILE24 GMBH - BERLIN JUL 2018 - AUG 2018

Kfzteile24 is a leading international online retailer specializing in car parts, with a prominent position as the top market leader in Germany.

Kalilou joined Kfzteile24 on a two-week urgent assignment to address critical issues and enhance their automation, logging, monitoring, and CI/CD processes. His goal was to help the company meet its deadline for launching its product in the Austrian market. During this period, Kalilou provided valuable support to the team on various DevOps topics and AWS-related questions.

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

DevOps & LEAD CLOUD STRATEGIST

SINCH AB - STOCKHOLM JAN 2018 - MAY 2018

Sinch AB is a cloud-based mobile communications platform that offers services such as voice, verification, video, and SMS. As part of their migration to AWS, Sinch recognized the need to implement AWS best practices. The project focused on designing and applying these best practices effectively.

Kalilou played a key role in developing and implementing best practices related to security, compliance, and cost optimization. He designed a robust AWS Identity and Access Management system and established compliance protocols for cloud resources, enabling Sinch to proactively address any resources that did not meet compliance standards.

As the GDPR representative for Sinch within the CLX organization committee, Kalilou contributed to ensuring GDPR compliance by establishing processes aligned with relevant regulations. In addition to his role as a cloud strategist, he facilitated the migration of Sinch's on-premise hardware monitoring to DataDog. His initiatives also resulted in significant cost savings, including a 100% reduction in expenses through the implementation of ElasticSearch security and the complete automation of 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 gaming world designed for horse and adventure enthusiasts, functioning as an MMORPG (Massively Multiplayer Online Role-Playing Game) with over 6 million users across 182 countries. As part of their transition away from an outdated traditional build system, which required significant manual intervention and was time-consuming, StarStable initiated a project to develop a new CI/CD tool based on modern principles. This new system aims to reduce build and deployment times while eliminating human interaction.

Kalilou joined the project as a senior DevOps engineer, tasked with establishing a new build environment from the ground up. He began by automating the environment in AWS using infrastructure as code, which included setting up Jenkins (master and agents), implementing

daily data backups, and establishing monitoring and restoration processes, as well as creating AWS EC2 AMIs through code.

Once the initial setup was complete, Kalilou moved on to migrate all build jobs from the old environment to the new Jenkins system. He also configured a Jenkins shared library, enabling the use of predefined steps in the Jenkins files for streamlined builds.

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 focused on developing and delivering solutions for electricity, heating, cooling, and resource efficiency. They offer services for the power generation industry and help consumers make smarter energy choices.

Kalilou joined Fortum IoT as a senior DevOps lead engineer and cloud lead strategist, overseeing all aspects of DevOps and cloud adoption. His main project involved creating an accelerated roadmap for migrating all on-premise applications to the cloud.

As the cloud lead engineer, Kalilou established a comprehensive cloud adoption strategy for Fortum IoT (formerly Fortum Tingcore). This included estimating the costs of required cloud resources and designing an AWS architecture that emphasized resiliency, security, scalability, availability, reliability, flexibility, and cost optimization. He ensured that all AWS resources were created and managed automatically.

To facilitate the migration, Kalilou implemented a modern CI/CD tool by setting up Jenkins, which he automated using infrastructure as code. He designed the CI/CD process with modern principles in mind, utilizing Jenkins pipelines. Additionally, Kalilou created a shared library containing reusable steps, enabling developers to write more flexible Jenkins files by leveraging these reusable components.

Kalilou also led knowledge-sharing initiatives within the team by conducting workshops. He educated and assisted remote teams in containerizing on-premise applications and writing Jenkins files for cloud deployment. Furthermore, Kalilou actively participated in interviewing potential candidates and onboarding new employees. He played a key role in refactoring several on-premise applications to ensure their compatibility with cloud migration.

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, BootstrapJS, Centos 7, Windows, SpringBoot

SENIOR DEVOPS & SOFTWARE ENGINEER

SCHIBSTED - STOCKHOLM DEC 2015 - NOV 2016

Schibsted Classified Media (SCM) is a prominent international media group with 6,800 employees across 30 countries, recognized as a leader in online classifieds. Tripwell Sweden AB, a sister company, decided to transition all its on-premise platforms (QA and Production environments) to the cloud, selecting AWS as its cloud provider with Kalilou's assistance. The project involved migrating all on-premise resources to AWS while establishing CI/CD practices.

Kalilou joined the project as a DevOps and backend engineer, tasked with designing a cloud infrastructure that is scalable, reliable, resilient, and secure. He also estimated the total cost of AWS resources before the migration. His responsibilities included provisioning and maintaining AWS resources, as well as setting up CI/CD environments, VPNs, SSL/TLS, a local RPM repository, and a local PyPI server, all through automated Infrastructure as Code (IaC) practices. Additionally, Kalilou documented processes and conducted workshops to share his knowledge with the team.

Since Tripwell lacked a reliable Server Configuration Management system, Kalilou was responsible for setting up a Chef server. He wrote and tested all Chef components (including cookbooks, data bags, and recipes) that were later used to provision new QA, build, and staging environments in vSphere. Furthermore, he implemented AWS CloudFormation for proper provisioning of all AWS resources. Kalilou also utilized Chef and CloudFormation to conduct a quick test of the Tripwell platform on AWS, ensuring the application could leverage cloud benefits such as scalability, operational cost optimization, resiliency, and enhanced security.

During this project, Kalilou also managed significant upgrades, including migrating from CentOS 6 to CentOS 7 and upgrading PostgreSQL from version 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 a global media group with 6,800 employees across 30 countries, recognized as a leader in online classifieds. SCM initiated a project for Tripwell Sweden AB, and Kalilou joined the team when Tripwell was still in its formative stages. The project aimed to implement core functionalities and launch the beta version of the platform.

As a backend engineer, Kalilou was responsible for designing and developing Tripwell's main product. During the beta phase, he worked extensively on all components, from backend to frontend. His contributions included integrating third-party services such as Trustly for payments, Zendesk for customer support, Twilio for SMS, and Transifex for translations, among others.

Kalilou focused heavily on the backend, addressing areas such as database design and implementation, email and SMS notifications, internationalization and localization, search engine functionality, integration, performance testing, code review, and planning workshops.

Thanks to Kalilou's efforts, the successful completion of the Tripwell beta was achieved, and he continued to support the ongoing development lifecycle of the main product.

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 Kalilou's 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, a private telecommunications company based in Bamako, Mali, provides local and international telephony, internet services, and mobile services through its subsidiary, Malitel. It also manages the .ml country code domain. Kalilou was tasked with analyzing Sotelma's ADSL network, protocols, and architecture, as well as addressing implementation and installation challenges. With his assistance, Sotelma has significantly improved its processes for installing and configuring ADSL technology for clients.

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)