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### Certified Cloud Architect / DevOps





Abdoul Karim CISSE

Docker, Kubernetes, OpenShift, AWS, ECS, Istio, Helm, Terraform, CloudFormation **REST API, Microservices** Java, Kotlin, Spring Boot, Python, Git, Jenkins, GitLab CI, Circle CI

# What can I do for you?

#### Architecture

Breaking things down, making reliable small and composable solutions to solve bigger problems. As software evolves very fast, they should be easy to operate, secure, extendable, observable and scalable without neglecting cost efficiency.

# Testing

"Every code is guilty until it's proven innocent." Software runs the world; tests are not an option. I strongly believe that tests are as important as features.

It's a part of my work and I try to practice TDD and BDD.

# **Software craftsmanship**

Make it work, make it elegant, make it fast... "Good isn't good enough if it can be better. And better isn't good enough if it can be best." I am an adept of Software Craftsmanship. I can stare at beautiful code and smile

# </>> Coding

More than a job, it's a passion! I love coding, solving problems, turning complexity to simplicity. I like efficient work that brings value to my clients, with high quality.

#### Build and Deploy

Not only I build it, I also run it! I am interested in many things that turn around software, especially in DevOps. I have significant experience in setting up continuous integration and deployment processes.

# Training

"Alone we go faster, but together we go further". I animate coding dojos to share my knowledge and get feedbacks. For me it's essential as we work in teams. Knowledge and good practices are meant to be spread for continuous enhancement of all.

#### Languages et tools

- Java, Kotlin, Spring, Spring Boot, JHipster, Python, Node.js
- HTML5, CSS3, JavaScript, Angular
- XML, SQL, Perl, Bash
- Elasticsearch, Logstash, Kibana (ELK)
- Git, Maven, Gradle

#### DevOps and Cloud computing

- Amazon Web Services (AWS), ECS, CloudFormation
- Docker, Kubernetes, Openshift, Istio
- Helm, Terraform, GitHub, GitLab CI, Circle CI, Jenkins 2

#### Data and Machine Learning

- Databricks
- Kubeflow
- MLflow

#### Databases

- Elasticsearch, Postgres, SQL Server, Oracle, MySQL, MariaDB, H2
- Amazon RDS

#### Design and Architecture

- Object Oriented Programming (OOP)
- Functional Programming (FP)
- Design patterns
- Domain Driven Design (**DDD**)
- RESTFul Web Services
- Microservices

#### > Tests

- Test Driven Development (TDD)
- Behavior Driven Development (BDD)
- Integration Tests and E2E Tests

#### Languages

• French: Bilingual

• English: Fluent

• Spanish: Basic

Wolof: Bilingual

• Soninke: Bilingual

# **₩** Work Experiences



#### DevOps - Cloud Architect at BivwAk! By BNP Paribas

October 2019 – Now

Environment: AWS, IBM Cloud, Terraform, Docker, Kubernetes, GitHub, Circle CI

#### Cloud Reference architectures - CI/CD

- Designing reference architectures for AWS and IBM Cloud
- o Automate Kubernetes cluster provisioning and cluster management on IBM Cloud
- o Help secure Kubernetes cluster: user access management and workloads security
- o Setting up Continuous Integration and Continuous Deployment pipelines
- Promoting best practices for cloud patterns and CI-CD
- Providing Cloud Native App samples

#### Building a data platform to help accelerate Machine Learning solutions

- Apply DevOps best practices to Machine learning
- o Set up continuous integration and continuous deployment for ML models
- o Implement multi-cloud solution using Databricks on AWS and K8S on IBM Cloud
- Implement Python REST API to serve models on Kubernetes
- Designing and implementing a data platform on top of Kubernetes using Kubeflow and MLflow
- Automating the data platform provisioning on IBM Cloud
- Creating Notebook samples for testing and demos purpose



#### **Senior Software Developer at Orange Wholesale**

September 2018 – August 2019

Environment: Java, Spring, Spring Boot, Maven, Git, GitLab CI, ELK, MariaDB, Docker, K8S, Helm

- Back-end Developer: Order Management Portal « Pseudowire »
  - o Analyzing needs and challenging the business
  - Estimating tasks
  - Designing and implementing features
  - Fixing bugs
  - Promoting best practices and writing contributing guide for developers:
     Git branching, commit naming, merge request process.
  - Building an isolated development environment: API Mocks (Wiremock), Docker, Docker
     Compose

Languages and tools: Java, Spring, Spring Boot, Maven, Git, GitLab CI, ELK, MariaDB

Methodologies: Agile/Scrum

#### • DevOps:

- Creating versioned docker images for services
- Creating deployment templates for Kubernetes and Helm
- o Creating GitLab CI pipelines to automate deployment
- Training: Animating Coding dojos



#### **Software Engineer at Oodrive**

March 2017 – June 2018

Environment: Java, Spring, Spring Boot, Maven, Git, Jenkins, ELK, Docker, K8S, Helm

- Back-end Developer: Sharing and Synchronization collaborative solutions
  - Analyzing needs
  - Estimating tasks
  - Developing features and correcting bugs
  - Participating in the setup of best practices
  - o Creating dashboards for incident analysis and performance monitoring

Languages and tools: Java, Spring, Spring Boot, Maven, Git, Jenkins, ELK

Methodologies: Scrum/Kanban

- **DevOps**: Team referent for continuous deployment process setup
  - Creating versioned docker images for our solutions
  - o Creating deployment templates for Kubernetes and Helm
  - o Creating Jenkins pipeline to automate de deployment
- **Training:** Animating Coding dojos
  - Test Driven Development (TDD)
  - o Continuous deployment process

- Developing web application for online insurance quotations
- Helping the project manager to take good decisions in order to guarantee higher quality of service
- Actively participating in the optimization of project transfers between project teams and operating teams
- Building a proactive Monitoring to enhance applications availability and performance
- Making a dedicated application performance and business reporting for BPMS and ARIS PPM solutions using ELK stack (Elasticsearch, Logstash and Kibana)
- Participating and Coordinating incident resolution actions: root cause analysis, components diagnosis and supervising corrective implementations
- Challenging the service center and promoting best practices for a better QoS.
- DevOps and cloud
  - Participating in DevOps transformation by coordinating and implementing continuous delivery tools and processes for our solutions (JAVA, .NET, Maven, TFS, Git)
  - o Infrastructure provisioning and application deployment automation
    - Deploying the first AXA France application on AWS (Elastic beanstalk, RDS, CloudFormation)
    - Comparing different deployment methods
    - Giving feedbacks and recommendation about best practices
- Building and animating developer community in order to promote best practices (TDD, BDD, Refactoring Legacy, Design patterns, SOA, Algorithmic), involve people to share their knowledge and build relationship.
- **Training**: Animating Coding dojos, twice a month (subject selection, animate the coding session, make feedbacks)
- Technology watch: gathering and analyzing technological information and testing tools for collaborative platform

# Information System Consultant at AXA France October 2012 - September 2014

Environment: RESTFul Web Services, Java, C#

- Improving the quality of service of our solutions by implementing proactive monitoring tools to monitor
  availability, performance and collect indicators for sensitive applications: RESTFul Web Services, Java,
  C#
- Implementing and/or coordinating corrective and evolutionary maintenance actions recommended by the service center
- Actively participating in the optimization of project transfer between project teams and operational teams
- Making a dedicated application performance reporting for ECM, BPMS and CTI solutions
- Making a capacity planning to offer the best quality of service at lower cost



#### **Project Manager at AXA France**

October 2011 - September 2012

- Designing a streamlined project management process to orchestrate and improve monitoring of documentary deliverables within the BPMS projects implemented by the service center:
  - Analyzing of the subject and collecting needs,
  - Study projects management process,
  - o Identification of all deliverables,
  - Sorting and standardization of documents
  - Design a simplified process
- Update the Gantt chart and monitoring of project progress, manage resources, especially to control the calendar.
- Participate in the modeling and documentation of platform architecture
- Participate in the establishment of a template report that will be shared, document where the business can express their needs in terms of applications, "design" GUI with an instant graphical restitution of his choice. (EXCEL, VB)



Open Source Project with Mozilla Foundation: HTML5, CSS3, Node.js, Git Slides Dynamiques : <a href="https://github.com/OresteVisari/Slides-Dynamiques">https://github.com/OresteVisari/Slides-Dynamiques</a>

An instant Slide share solution for meetings and trainings

- Slide share with one or multiple connected users
- Broadcasting events to all connected clients using WebSockets: next, previews, video and audio streaming
- Public chat
- Private chat
- Offline mode
- Synchronizing video streaming for all clients
- · Recording session for replay
- Delegating presenter role
- Secured authentication through HTTPS.
- Slide upload



Masters annual project: Team of 3 developers
Web application for property manager: UML, Java, GWT

- Analyzing needs
- Design: classes diagrams and use cases diagrams
- Implementing features
  - o Property management: real estate information, works, ...
  - o Rental management: rent receipt, payments, charges, reminders, ...
  - Providers management
  - o Co-owned Syndicate management: general meetings agenda, distribution
  - o Exports PDF, EXCEL
  - Accounting: Account management, treasury...



Annual project of bachelor's degree realized in pair Expense report application: UML, Java/Swing

- Analyzing needs
- Design: classes diagrams and use case diagrams
- Implementing features:
  - Add/Modify/Create/Delete an expense
  - Add expense by type (transport, accommodation, meal, ...)
  - Add attachments (images, PDF)
  - o Export to PDF, EXCEL
  - Send via Email

# **Education**





**2012-2014 Master's degree – Apprenticeship:** Graduated with honor **MIAGE (Computer science and Management)**: Evry University – CFA AFIA

May 2014 CLES 2 - English
Higher Education Language Skills Certification 2 (French CLES 2)

June 2008 Bachelor's degree, Sciences Blaise Diagne Higher School - Dakar (Senegal)

## ♣ Hobbies and Interests

- > Computers, Sciences, Meetups, Ted Conferences, Personal development
- Football: with friends and colleagues
- Fitness: 3-4 times a week
- Swimming (beginner)