

# MOUHAMADOU MOUSTAPHA GAYE

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## Frontend developer

Lead Frontend developer with senior-level experience building enterprise web applications. Delivered a component library of 30+ reusable Angular/Tailwind UI elements, cutting development time by 35% and ensuring design consistency. Designed and implemented FHIR-based data exchange for an EMR system, achieving 95% data accuracy across multiple health information platforms. Seeking to apply proven frontend architecture and automation skills to drive high-quality, scalable products.

## WORK EXPERIENCE

### MODELSIS - SGF

03/2024 - Present

#### Software Engineer • Full-time

Dakar

Digitalization and automation of land administration business processes through BPMN workflow modeling and GIS integration

- Worked within an Nx monorepo architecture comprising two interconnected applications and two shared libraries, improving code reuse and maintainability across the platform
- Developed and maintained a component library with Storybook, creating 30+ reusable components that reduced feature development time by 35% and ensured 95% design consistency across applications.
- Built a web application for land-administration workflow management, implementing complex BPMN-based processes, which accelerated task routing and reduced processing delays
- Created a library to abstract Camunda BPM engine integration, enabling seamless workflow orchestration across the platform
- Modeled 15 land administration business processes using BPMN, automating workflows and reducing manual processing time from 7 days to 48 hours.
- Integrated Geographic Information System (GIS) components for spatial data visualization and land-parcel management, enabling users to view and edit parcel boundaries directly within the platform

### MEDSEN

03/2023 - 03/2024

#### Lead Frontend • Full-time

Dakar

- Led a 2-developer frontend team and developed the EMR application with Angular and Tailwind, following the FHIR v4 standard, which enabled standardized patient data handling across the system
- Designed and implemented FHIR data exchange architecture with custom facade supporting 3 FHIR resource types (Patient, Observation, and Encounter), interoperability with 2 external health information systems at 95% data accuracy.
- Mentored 2 developers (junior mobile, mid-level web) through code reviews and pair programming, accelerating their autonomous delivery by 60% within 3 months.
- Optimized the software development lifecycle by introducing best practices, code reviews, and streamlined deployment processes with Terraform, resulting in faster release cycles and fewer defects
- Built 30+ reusable Angular/Tailwind components, reducing UI development time and improving frontend performance, which delivered smoother user interactions

### TEAMXGROUP - LOGIKA

12/2022 - 02/2023

#### Lead Developer • Full-time

Dakar

Technical leadership and architecture design for the Logika project, managing a team of 3 developers (1 mid-level backend, 2 junior frontend)

- Defined the complete technology stack (Angular, Node.js, MongoDB) and designed a monolithic architecture that met project requirements, enabling a unified codebase and simplifying integration across teams

- Established development standards and workflows; initialized project structure, implemented Git branching strategy, and set up CI/CD pipelines to ensure consistent code quality.
- Built technical documentation foundation using Docusaurus, creating a knowledge base for onboarding and maintaining development best practices
- Mentored 2 junior frontend developers through code reviews and pair programming, reducing their PR turnaround time by 50% and enabling independent feature delivery within 2 months.
- Provided ongoing technical support and architectural guidance to ensure team alignment and project delivery

#### **XFactory – LOGIDOO**

**03/2022 – 11/2022**

##### **DevOps • Full-time**

**Dakar**

- Integrated DevOps practices into the development process, enhancing deployment speed by 60% through IaC and CI/CD implementation within 4 months.
- Improved system reliability by implementing comprehensive monitoring solutions, resulting in a 30% reduction in downtime within 2 months.
- Streamlined collaboration between development and operations by introducing shared Jenkins pipelines and Slack communication channels, which promoted ongoing process improvements

##### **Backend Developer • Full-time**

**Dakar**

Architectural refactoring and route optimization for Logidoo, a cross-border logistics platform serving African trade routes

- Migrated the monolithic Express.js application to three independent NestJS microservices, cutting deployment coupling by 80% and lowering API response time from 750 ms to 320 ms
- Implemented Dijkstra's algorithm to optimize 500+ daily shipment routes, enabling cost reduction and faster delivery times for customers across 8 African countries.

#### **XFACTORY – MBURU**

**12/2020 – 03/2022**

##### **Full-Stack Developer • Full-time**

**Dakar**

Development and refactoring of a multi-site management platform for an expanding bakery (Angular, Ionic, ExpressJS, MongoDB) Within a team of 3 developers, I evolved from a mobile developer role to full-stack responsibilities as the project grew:

- Developed the mobile application with Ionic and Angular for daily bakery management, enabling over 100 users to perform tasks
- Orchestrated data migration of 50,000+ records during expansion to 3 new sites: designed and implemented an ETL pipeline using Apache NiFi and Python scripts to ensure multi-site data consistency with 80% data integrity
- Refactored the backend and frontend to support a multi-site architecture, enhancing system scalability and maintainability
- Designed and implemented a data exchange architecture to synchronize transactions with an external Point of Sale and achieved 99% sync accuracy

## **EDUCATION**

### **Diplôme d'Ingénieur de Conception en Informatique DIC**

ÉCOLE SUPÉRIEURE POLYTECHNIQUE

01/2022

### **Diplôme Supérieur de Technologie en Informatique DSTI**

ÉCOLE SUPÉRIEURE POLYTECHNIQUE

01/2019

### **Baccalauréat Série S1**

COURS PRIVÉS SEYDINA MANDIONE LAYE

01/2017

## **SKILLS**

**Développement Backend:** Camunda, Express JS, GraphQL, KeystoneJS, Microservices, Nest JS, Node JS, Python, RabbitMQ, REST APIs, Strapi

**DevOps & Infrastructure:** Ansible, Apache, AWS, Bitbucket Pipeline, Docker Swarm, ELK, Grafana, Jenkins, Nginx, Portainer, Prometheus, Terraform, Vagrant

**Développement Web/Mobile:** Angular, Flutter, Ionic, Jest, Nx, Redux, RXJS, Storybook, Tailwind CSS

**Base de données:** Meilisearch, MongoDB, MySQL, PostgreSQL, Redis

**HealthTech:** FHIR, HL7, Open Concept Lab, OpenMRS