

BACKEND / API ENGINEERING

LEMBOU PHAREL

Backend Developer | Node.js | PostgreSQL | DevOps

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PROFESSIONAL PROFILE

Backend developer building secure systems with Node.js, Express.js and PostgreSQL. Experience spans REST APIs, payments, geospatial services and Linux deployment, with security research informing API design.

DEVELOPMENT EXPERIENCE

Independent Backend Developer

2024 – Present | Yaoundé, Cameroon

- Design backend architecture, REST APIs and PostgreSQL schemas for web, mobile and AI applications.
- Implement authentication, authorization and business workflows; integrate third-party APIs.
- Containerize applications and databases; deploy on Linux VPS hosts with Nginx, Cloudflare and HTTPS.
- Troubleshoot services, test application security and design for intermittent connectivity.

SELECTED BACKEND PROJECTS

CityLink | **Geospatial waste management**

Node.js / Express / PostgreSQL / PostGIS / Docker

- Designed REST APIs, authentication and a PostgreSQL/PostGIS schema for location-based workflows.
- Integrated OpenStreetMap and OSRM; designed offline synchronization for mobile/web clients.
- Containerized PostgreSQL; integrated computer vision.

PayNow WA | **WhatsApp payment platform**

Node.js / Express / PostgreSQL / Prisma / Docker

- Built APIs and 20+ Prisma models for authentication, seller business logic and payment workflows.
- Integrated WhatsApp automation and payment-provider services; built a lightweight PWA interface.

TECHNICAL TOOLKIT

Backend

Node.js, Express.js, JavaScript, PHP, REST APIs, API architecture

Data

PostgreSQL, PostGIS, Prisma, SQL, relational schema design

API security

JWT, authentication, authorization, validation, sessions, rate limiting

Delivery

Docker / Compose, Linux, Nginx, Cloudflare, TLS, UFW, Git / GitHub

Supporting technologies

Python, Bash, React, Flutter, HTML / CSS, PWA, external API integration

DEPLOYMENT OWNERSHIP

Configure and troubleshoot the path from DNS and Cloudflare through Nginx to backend services and PostgreSQL.

Linux VPS administration, environment configuration, HTTPS certificates and service monitoring.

CODE & PORTFOLIO

GitHub / lemboupharel

Portfolio / pharel.dev

HackerOne / lembou

Medium / @pharellembou

ADDITIONAL API & SERVICE PROJECTS

OpenSwitchAI

AI model routing / API infrastructure

Built an AI routing service that switches between model providers behind a unified API layer, covering provider abstraction, backend services and environment configuration.

MboaGuard

AI-powered security assessment platform

Designed backend architecture and agent-based assessment workflows. Integrated automated analysis, evidence and reporting concepts, with architecture for future continuous monitoring.

Voice-First AI Operating Layer

Experimental mobile / Python service integration

Built Python bridge services and a Flutter interface connecting speech recognition, vision processing and Android automation through HTTP APIs.

SECURITY-INFORMED BACKEND DESIGN

Research experience helps evaluate APIs from both the builder's and tester's perspective, with attention to trust boundaries and data exposure.

- Reported an unauthenticated production telemetry exposure: accepted Medium-severity finding, $150 bounty.
- Investigated object-level authorization / IDOR and remote signing authentication weaknesses; both reports classified as duplicates.
- Apply knowledge of JWT, CORS, sessions, replay behavior and rate limits to API design and review.

TECHNICAL COMMUNICATION

AWS Cloud Security

Polytechnique Yaoundé / AWS / XyberClan | 2026

Presented how web and API vulnerabilities can become cloud-infrastructure risks, connecting application security with containers, IAM, AWS data services and defensive monitoring.

DATABASE PRACTICE

PostgreSQL

Relational schemas, relationships, constraints, queries, transactions and indexing concepts

PostGIS

Geographic data, spatial queries, location-based services and mapping workflows

Prisma

ORM-based schema management, models, relations and API/database integration

RESEARCH CREDENTIALS

> **#1 in Cameroon**
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> HackerOne Q3 2026 country leaderboard, web-application category.

7+ real-world-impact vulnerabilities reported on HackerOne.

82 HackenProof reputation points and six security findings/reports.

EDUCATION

University of Yaoundé I

Computer Science / Informatics
Undergraduate studies
Yaoundé, Cameroon

LANGUAGES

French / Native, fluent
English / Professional, fluent