

JOSEPH AYUK E.

Software Engineer / Backend Lead

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Backend-focused full-stack engineer who designs multi-tenant SaaS platforms, PostgreSQL domain systems, and production-grade AI assistants. At Premonio, lead a 3-person engineering team building a RevOps scenario-planning product serving B2B customers in production, owning backend architecture, tenancy, billing/RBAC, and a first-party AI assistant platform. Previously modernized telecom operations platforms (legacy migrations, monitoring, predictive tooling etc...) with measurable uptime and efficiency gains.

WORK EXPERIENCE

► Software Engineer / Backend Lead | Premonio, San Francisco (Remote)

2024 – Present

RevOps scenario-planning SaaS · Laravel · React/Inertia · PostgreSQL · Multi-tenant · AI

- Designed and owned the multi-tenant SaaS backend for a RevOps platform serving B2B customers in production, using database-per-tenant isolation (Laravel + Stancl Tenancy) with domain-based tenant resolution, central vs tenant data boundaries, and tenant-aware queues/cache/session bootstrapping.
- Architected a layered, versioned REST API with thin controllers, service orchestration, and SQL-facing repositories, separating auth/org concerns from a large PostgreSQL domain engine (views, functions, and table handlers) for scenario recalculation, imports, and analytics.
- Implemented commercial SaaS controls: team-scoped RBAC, resource policies (ownership/visibility), Stripe/Cashier billing, and plan-tier entitlements (seats, scenario caps, feature gates) so product packaging is enforced at the API boundary and not only the UI.
- Operationalized tenant lifecycle end-to-end: provision DB, apply versioned schema builds/upgrades, seeding system data; soft-decommission via rename; Artisan/ops tooling for upgrades and tenant health, thereby reducing risky ad-hoc production schema work.
- Designed and built Revie, a first-party AI assistant platform on Laravel AI + Vercel AI protocol (SSE streaming): multimode agents, 50+ tool calling capabilities with risk tiers, allowlisted generative UI and in-app actions, and per-tenant AI gating without exposing provider key to the browser.
- Reduced customer friction and consultant dependency by enabling users to navigate and complete workflows through Revie, instead of relying on human onboarding support.
- Shipped a hybrid Inertia + React client architecture with a typed RTK Query domain API layer (envelope unwrap, CSRF recovery, tagged cache invalidation); delivered key RevOps surfaces end-to-end where full-stack ownership was needed.
- Led a team of 3 engineers: owned system architecture and backend delivery, reviewed designs/PRs for tenancy/security/correctness, guided frontend against a shared API contract, and established CI/CD supporting a consistent 2-week sprint cadence.
- Codified engineering standards (backend layering, frontend API consumption, AI tool/safety patterns) as reusable architecture docs so a 3-person team could ship consistently without architecture drift.

WORK EXPERIENCE CONTINUED

► Tech Lead | CAMTEL, Cameroon

2019 - 2024

- Led proprietary data-system and modernization work across network operations; migrated 5 legacy applications (monitoring, billing, and related ops) to modern frameworks, reaching 99.9% uptime and closing critical security gaps.
- Designed and built a network failure prediction tool that cut MTTR by 50%, reduced client churn by 7%, and supported winning 20 new enterprise contracts.
- Introduced Agile/Scrum for a cross-functional team, improving feature delivery velocity by 30% and cutting critical bug reports by 25%
- Turned business goals into a prioritized technical roadmap with estimated \$20K annual cost savings.

► Software Developer | Vodafone, Cameroon

2017 - 2018

- Built network monitoring tooling that cut outage identification time by 94% and removed 700+ hours/year of manual work.
- Delivered a real-time site-performance dashboard that replaced manual reporting and saved ~12 hours/week of data aggregation.
- Automated collection/reporting with ETL scripts, eliminating ~8 hours/month of manual report effort; iterated from operator feedback to drive ~70% adoption/efficiency gains on the tool.

TECHNICAL SKILLS

- **Backend & SaaS:** Laravel, PHP, Node.js, PostgreSQL, MySQL, REST API design, multi-tenancy (DB-per-tenant), RBAC, Stripe/Cashier, Sanctum/Fortify, queues.
- **Frontend:** React, TypeScript, Inertia.js, Redux Toolkit / RTK Query, Tailwind CSS, Next.js
- **AI / Platform:** Agent tool-calling, streaming (SSE), Laravel AI SDK (for backend), Vercel AI SDK (for frontend).
- **Cloud & DevOps:** Laravel Cloud, Vercel, Neon, CI/CD (Github Actions)
- **Practices:** Systems design, legacy modernization, Agile/Scrum, technical leadership.

EDUCATION

Masters of Engineering (M.Eng.) in Telecommunications

2011 – 2016

National Advanced School of Engineering, Cameroon

OTHER

- **Languages:** English & French
- **Portfolio:** <https://www.josephayuk.me/>