

Amadu Silva Bah

Lead Backend Engineer | DevOps Specialist

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Professional Summary

Accomplished Lead Backend/Full-Stack Engineer and DevOps Specialist with over 20 years of experience directing cloud architecture, automating CI/CD pipelines, and modernizing legacy monoliths into scalable microservices across PHP, Symfony, Node.js, and AWS platforms.

Proven track record optimizing production stability, mitigating data latencies, and implementing resilient architectures with a strict focus on high availability and operational efficiency metrics.

Technical Expertise

- **Backend & Full-Stack Engineering:** PHP 8.x, Symfony (v1.4 to v5), Node.js, Python, TypeScript, Laravel components, Django, Zend, Technical Leadership.
- **DevOps & Cloud Infrastructure:** AWS (VPC, ECS, RDS, S3), Terraform (IaC), Docker, Jenkins, CI/CD, Automated Deployments, Bash/Python Scripting.
- **Architecture & Data:** Microservices, PostgreSQL, MySQL, Redis, RabbitMQ, AWS SQS, Memcached, Apache Solr, Multi-tenancy.
- **Quality & Observability:** TDD/BDD (PHPUnit, Behat), OAuth2, JWT, New Relic, Sentry, Fastly CDN.

Professional Experience

Senior Engineering Lead & Technical Architect | June 2012 – Present

Grocery Genius / Chexup

- **Cloud Architecture:** Autonomously direct cloud architecture for AWS environments, establishing a 100% remote operating model and dedicating 80% of delivery capacity to DevOps workloads to guarantee 99.9% production uptime.
- **Infrastructure as Code:** Designed and managed modular AWS environments (VPC, ECS, RDS, S3) via Terraform and Docker, reducing core infrastructure provisioning time by 40%.
- **CI/CD Automation:** Built Jenkins-based CI/CD pipelines with Python and Bash automation, decreasing release cycle times by 35% and mitigating production deployment failures.
- **Edge Caching & Scale:** Implemented advanced HTTP edge caching policies via Fastly CDN, integrated with Redis and Memcached, maintaining stable response latencies

below 200ms during massive global traffic spikes.

- **Microservices Migration:** Directed the structural decomposition of legacy PHP monoliths into decoupled microservices using Symfony and Node.js alongside AWS SQS and RabbitMQ, improving horizontal scalability and ensuring complete team release independence.
- **System Observability:** Deployed continuous observability with New Relic and Sentry to identify and remove PostgreSQL/MySQL database bottlenecks, resulting in a 25% reduction in production incidents and accelerating fault response times.

Senior Software Developer & Tech Lead | January 2013 – December 2014

Powwownow (PGI)

- **Real-Time Streaming:** Developed robust backend architectures and client-side JavaScript libraries to power WebRTC video conferencing in real time via WebSockets.
- **Platform Modernization:** Led the migration of multiple international legacy web properties from Symfony 1.4 to a centralized Symfony2 infrastructure, simplifying maintenance and standardizing shared data models across global teams.
- **VOIP Data Processing:** Programmed Node.js and Symfony processing utilities for real-time monitoring and parsing of Asterisk VOIP communication logs, processing massive data volumes without message loss.
- **Code Quality:** Guaranteed core platform coverage and integrity by establishing automated unit and integration testing suites using PHPUnit, Karma, and CasperJS.

Senior Software Developer | March 2012 – January 2013

Tangent Communication PLC

- **API Architecture:** Designed and implemented REST APIs under strict test/behaviour-driven development frameworks (BDD with Behat) and integrated high-speed enterprise search indexing via Apache Solr.
- **Data Modelling:** Optimized complex relational database schemas and engineered asynchronous backend pipelines for mass data report extraction into PDF, XLS, and JSON formats.

Software Developer | August 2007 – January 2008

E-ventos (Web Information Systems)

- **Maintenance & Scale:** Developed dynamic web modules and resolved critical production concurrency bugs, ensuring core stability and business continuity.

Software Developer (Contractor) | November 2006 – July 2007

Ravelino (Web Information Systems)

- **Refactoring:** Conducted remote diagnostics, debugging, and logical error corrections within legacy codebases, optimizing memory consumption across Apache/Linux instances.

HelpDesk Technician | June 2006 – October 2006

Octal TV – Novabase Group

- **Network Triage:** Provided specialized 1st and 2nd line IP connectivity and infrastructure support for high-density NetCabo network users.

Software Developer | July 2004 – April 2006

Construlink S.A (Information Systems)

- **Backend Programming:** Analyzed specifications and programmed modular web features for corporate applications and B2B portals.

Education

BSc in Computer Science and Engineering

Instituto Superior Técnico (IST) – Technical University of Lisbon.

- *Core Focus:* Distributed Systems, Software Architecture, Algorithms, Communication Networks, and Software Engineering.

Languages

- **Portuguese:** Native speaker.
- **English:** Intermediate Proficiency (CEFR B1.1 – Passed with Distinction, Trinity College London).