



Emilien Escalle

Fractional Hands-On CTO & Senior Lead Developer | Lean & DevX Expert | Node.js, PHP & Cloud Native

Aix-en-Provence, Provence-Alpes-Côte d'Azur, FR

French, English

BACKGROUND

ABOUT

Fractional CTO and Senior Lead Developer with 16+ years helping companies reduce deployment time by 50-70% and cut infrastructure costs by 30-40% through Lean engineering and DevOps transformation.

I architect scalable applications using SOLID principles and Clean Architecture across Node.js, PHP, and cloud-native ecosystems. My implementations typically accelerate release cycles from weeks to days while improving system uptime from ~99% to 99.9%.

Combining strategic vision with hands-on execution, I've supported 20+ digital transformation projects across e-commerce, SaaS, and consulting sectors, delivering solutions that eliminate technical bottlenecks and reduce time-to-market by 40-60%.

My Developer Experience methodology improves team velocity by 30-50% through optimized CI/CD pipelines, automated quality gates, and reduced technical debt-enabling sustainable growth and faster feature delivery.

WORK EXPERIENCE

Fractional Hands-On CTO & Senior Lead Developer, [ESCEMI](#)

Jan, 2009 - Present

Freelance consulting business providing technical consulting and development services. At your service to support you and meet the challenges of your digital projects.

- Coached 15+ technical teams (5-12 developers each) in Lean and DevOps adoption, reducing bug escape rate by ~40% and accelerating sprint velocity by 30-50% through structured knowledge transfer and hands-on mentoring

- Implemented SOLID-based architectural frameworks across 8 client projects, cutting technical debt accumulation by 50% and reducing code review cycles from 3-4 days to <24 hours
- Designed and deployed scalable API systems (REST, GraphQL, gRPC) handling 100K+ daily requests with <100ms latency, supporting 10x traffic growth without infrastructure scaling
- Built optimized CI/CD pipelines (GitHub Actions, GitLab CI/CD, Jenkins) reducing deployment time from 2-4 hours to 15-30 minutes while automating 90% of quality checks
- Led cloud-native migrations (AWS, Kubernetes) cutting infrastructure costs by €80-150K/year (-30-40%) and improving deployment frequency from monthly to daily releases

Fractional Hands-On CTO & Senior Lead Developer Freelance | Lean & DevX Expert | Node.js, PHP & Cloud Native, [build and run FR](#)

Feb, 2020 - Present

As a member of the Build & Run collective, I bring my expertise as CTO and Senior Lead Developer to help companies structure, optimize and scale their technical teams.

- Architected microservices platforms processing 500K+ daily transactions with 99.9% uptime, reducing monolith complexity by 60% and enabling independent team deployments
- Optimized CI/CD workflows cutting deployment time from 3 hours to 20 minutes, increasing release frequency from bi-weekly to daily while reducing production incidents by 45%
- Enhanced Developer Experience through tooling and automation, improving developer onboarding from 4 weeks to 1 week and increasing code commit-to-production speed by 50%
- Mentored 25+ developers across 5 companies in modern practices (TDD, Clean Architecture, pair programming), elevating team seniority level and reducing turnover by ~30%
- Aligned technical roadmaps with business objectives, delivering features 40% faster by implementing prioritization frameworks and eliminating 50% of unnecessary technical work

Chief Technical Officer (Co-founder), Ouistiti

Sep, 2018 - Sep, 2019 1 year

Creation of a mobile & web application for personalized travel recommendations and inspiration.

- Built JAMStack/Serverless travel app on AWS reaching 5,000+ active users within 6 months, with <500ms page load time and 99.8% uptime
- Delivered MVP in 3 months with full product roadmap, user stories, development and testing-75% faster than traditional development approach
- Conducted 12 user focus groups analyzing feedback from 150+ testers, implementing UX improvements that increased engagement by 40%
- Managed product growth via SEA, Facebook Ads (€15K budget), CRM & email campaigns generating 300+ weekly signups at €2.50 CPA

Technical Director, [Qwamplify Activation](#), Groupe QWAMPLIFY

May, 2017 - Aug, 2018 1 year 3 months

Technical leadership with responsibility for IT strategy, architecture and innovation.

- Executed IT Master Plan for 3-year digital transformation, consolidating 8 disparate systems into unified architecture and reducing maintenance costs by €200K/year
- Led requirements gathering with C-level stakeholders across 5 business units, translating needs into technical specifications that reduced project scope creep by 60%
- Evaluated and implemented technology investments worth €500K, delivering ROI within 18 months through efficiency gains and automation
- Coordinated cross-functional teams of 25 people (developers, testers, ops) across UI, services, and infrastructure layers, improving delivery predictability from 50% to 85%

- Industrialized development processes through CI/CD automation, reducing production defects by 55% and cutting release cycle from 4 weeks to 1 week
- Integrated 5 POC innovations (including microservices and containerization) into production, accelerating feature development by 35%

IS Architect, [Qwamplify Activation, Groupe QWAMPLIFY](#)

Feb, 2015 - May, 2017 2 years 3 months

Design of service-oriented application architecture and industrialization of the development cycle.

- Designed service-oriented architecture (SOA/Microservices) handling 2M+ daily requests, improving system modularity and enabling 3 teams to deploy independently
- Implemented Big Data infrastructure (ElasticSearch, Logstash, MongoDB) processing 50GB+ daily logs, reducing query time from minutes to <3 seconds
- Standardized development environment (PHP, Zend Framework 2, Doctrine 2) for 15-person team, cutting setup time from 2 days to 2 hours
- Established development standards (PSR, W3C) and code review practices, reducing code defects by 40% and improving maintainability scores by 35%
- Built continuous integration pipeline with automated tests (PHPUnit, Selenium), catching 70% of bugs before production and reducing hotfixes by 50%
- Automated deployment procedures (Phing) eliminating manual errors and reducing deployment time from 3 hours to 30 minutes
- Led Product/ERP team of 8 developers using Scrum/Kanban, increasing sprint completion rate from 60% to 90% over 12 months

Team leader, [Qwamplify Activation, Groupe QWAMPLIFY](#)

Sep, 2013 - Feb, 2015 1 year 5 months

Managing activities and a development team according to agile organization.

- Managed agile development team of 6 developers, improving sprint velocity by 25% through optimized processes and daily standups
- Implemented quality control framework reducing production bugs by 35% and improving code review efficiency by tracking key metrics
- Optimized application architecture and performance, reducing page load time by 40% (from 2.5s to 1.5s) and improving user satisfaction scores

Application systems manager, [Logicielnet](#)

Sep, 2010 - Sep, 2013 3 years

In charge of the evolution of the application suite, core business of the company: a modular SAAS solution.

- Evolved modular SaaS platform serving 200+ B2B clients, delivering 15+ major features annually while maintaining 99.5% uptime
- Led development projects from specification to client validation, coordinating 4-person team and reducing time-to-market by 30% through improved project tracking

R&D Engineer, [Logicielnet](#)

Sep, 2009 - Sep, 2010 1 year

Design of a Web Callback (Click to call) module to improve customer relations for users of the company's application panel.

- Designed and implemented Web Callback module integrated with VoIP systems, improving customer response time by 50% and increasing call conversion rates by 25%
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Participation in setting up a social platform based on Zend Framework.

- Built frontend, backend, and REST API for social platform using Zend Framework, supporting 1,000+ beta users with real-time interactions
- Developed iPhone application achieving 500+ downloads and 4.2★ rating in first month, delivering social features on mobile
- Applied Scrum methodology completing 8 two-week sprints with 85% story completion rate and consistent velocity

PROJECTS EXPERIENCE

Air Corsica - DevX Platform Engineering, Air Corsica

Jan, 2023 - Dec, 2024 1 year 11 months

Modernized developer experience and transactional security for airline booking platform through GitHub Actions CI/CD ecosystem, hands-on mentoring, and resilient NestJS/RabbitMQ proxy architecture.

- Reduced deployment time by 80% (from ~2 days manual work to <30 minutes fully automated) via reusable GitHub Actions workflows with canary deployments and automated rollbacks
- Increased release frequency 5× (from monthly to weekly feature releases) through infrastructure-as-code (Terraform + ArgoCD) ensuring staging/production parity
- Improved transaction reliability to 99.9% uptime with 90% fewer third-party failures by architecting NestJS proxy with RabbitMQ, implementing circuit breakers, retry policies, and idempotency guarantees
- Cut new developer onboarding time by 70% (from multiple days to <1 day productivity) through standardized workflows, living style guides, and automated dependency updates
- Mentored distributed team (in-house + contractors) on Clean Architecture and SOLID principles via weekly workshops, elevating code quality and establishing unit-test coverage thresholds
- Deployed resilient microservice in Docker with OpenTelemetry monitoring, Datadog integration, and zero-downtime health checks for critical booking/payment flows

Critical Infrastructure IoT Gateway Platform, Global Smart Infrastructure SaaS Provider

Jan, 2023 - Aug, 2024 1 year 7 months

High-performance IoT gateway for global smart infrastructure SaaS provider, unifying heterogeneous device integration across data centers and smart buildings with Redis-backed resilience, automated CI/CD, and OpenTelemetry observability.

- Achieved 99.99% production uptime by implementing Redis caching, edge queueing, and automatic retry strategies with exponential backoff
- Reduced data loss incidents by 85% through resilient fallback mechanisms that buffer messages during SaaS platform outages
- Accelerated new device onboarding by 81% (from 3 weeks to 4 days) via centralized decoders, schema-based validation, and normalized payload pipeline
- Scaled to handle 10× traffic increase (100K+ events/minute per gateway) without additional hardware through worker pools and optimized in-memory caching
- Cut deployment cycle time by 70% with GitLab CI automation integrating unit, integration, and E2E tests plus canary releases and staged rollouts
- Built unified REST API with OpenAPI specification for device lifecycle management, enabling remote registration, updates, and real-time monitoring
- Integrated OpenTelemetry for full observability with logs, metrics, and alerting tied to device health and data flow KPIs

Two-phase strategic consulting engagement for a career guidance platform: comprehensive IT audit followed by monthly CTO accompaniment covering product roadmap, technical recruitment, and infrastructure/security vendor management.

- Conducted 1-week IT audit analyzing application architecture, development processes, and team organization, identifying 12 priority improvement areas that reduced technical risk by 60%
- Structured interviews with 8 stakeholders (product, project, tech leads) to map system dependencies and bottlenecks, reducing feature delivery timelines by ~40%
- Developed 5 technical job descriptions aligned with product strategy, accelerating recruitment process from 3 months to 6 weeks and improving candidate-role fit by 45%
- Defined 12-month technical roadmap prioritizing 15+ initiatives by business impact and feasibility, aligning tech investments with growth objectives (+30% target user increase)
- Managed relationships with 3 external vendors (cloud infrastructure, security assurance), negotiating SLAs guaranteeing 99.5% uptime and reducing infrastructure costs by ~25%
- Established technical governance framework (monthly committees, velocity KPIs, quality dashboards) improving team visibility and reducing time-to-market by 35%

Tekkare - Technical Mentoring & Architectural Bootstrap, Tekkare

Apr, 2022 - Jun, 2022 2 months

Hands-on mentorship of development team for technical services management platform, accelerating their skill growth in GraphQL/modern backend API architecture and optimizing development practices.

- Reduced new feature development time by 40% through optimized GraphQL architecture with NestJS, replacing multiple REST endpoints with unified, type-safe queries
- Accelerated new developer onboarding from ~2 weeks to ~5 days via living architectural documentation, reusable patterns, and annotated code examples
- Improved code maintainability by 50% by implementing Clean Architecture and SOLID principles with clear layer separation (domain, application, infrastructure)
- Optimized database query performance by 60% (from ~800ms to ~300ms average) through Postgres ORM optimization, strategic indexing, and N+1 query resolution
- Established quality pipeline with automated testing (unit, integration, E2E) reducing production regressions by 70% and increasing deployment confidence
- Mentored team on GraphQL best practices (dataloaders, pagination, error handling) and NestJS patterns via pair programming and structured code reviews

Atlas des Régions Naturelles (ARN) - Backend Architecture, Atlas des Régions Naturelles

Jun, 2022 - Dec, 2023 1 year 6 months

Designed and developed backend architecture for the ARN photographic archive platform, documenting 15,000+ images of French landscapes and buildings through an optimized NestJS/Laravel stack focused on performance and scalability.

- Architected photo archive platform managing 15,000+ high-resolution images with multi-criteria filtering (region, typology, materials, period), ensuring <300ms response time and 99.9% uptime
- Implemented hybrid categorization system with full-text indexing handling 10,000+ daily search queries with geographic, thematic, and historical navigation
- Optimized image processing pipeline reducing upload and thumbnail generation time by 60% (from ~5min to ~2min per batch of 50 images) through parallelization and smart compression
- Designed unified REST/GraphQL API with distributed caching cutting server load by 70% and enabling integration with physical exhibitions and printed publications

- Deployed cloud-native infrastructure with geographically distributed CDN reducing bandwidth costs by 40% while improving international load times by 55%
- Established CI/CD pipeline with automated testing ensuring metadata quality (geolocation, regional taxonomy) and reducing cataloging errors by 80%

Tekoway / Eukles - Architecture Standardization, Tekoway / Eukles

Jan, 2020 - Jan, 2023 3 years

3-year strategic technical mentorship across European development teams, standardizing architecture and boosting delivery efficiency for PHP/Symfony and Node.js/NestJS projects before and after Tekoway's integration into Eukles.

- Reduced project bootstrap time by 45% (from ~10 to ~5.5 days) through shared architecture blueprints applying Clean Architecture and SOLID principles across Symfony and NestJS stacks
- Accelerated developer onboarding ×2 faster (from ~3 weeks to 1.5 weeks) via unified project templates, automated setup scripts, and common tooling across European locations
- Cut post-release bug rate by 30% after implementing standardized QA workflows and cross-country DevOps pipelines using Docker, GitLab CI, and ArgoCD
- Improved developer satisfaction by 35% on internal surveys regarding architecture clarity and tooling through architecture clinics, workshops, and documentation
- Mentored distributed teams remotely across multiple European countries, establishing shared technical language and unified engineering culture that scaled seamlessly through Tekoway's evolution into Eukles
- Built multi-stack project boilerplates integrating DDD folder structures, dependency injection, logging, monitoring, and observability hooks for consistent delivery quality regardless of team location

twbs-helper-module, Open Source Community

- Present

Laminas (formerly Zend Framework) module that streamlines Twitter Bootstrap component integration.

- 21+ GitHub stars and 20+ forks adopted by enterprise portals and design systems
- Ships reusable helpers for grids, forms, navigation, and responsive layouts to accelerate delivery
- Maintains comprehensive docs, CI pipelines, and semantic versioning to guarantee backward compatibility

php-css-lint, Open Source Community

- Present

CLI and Composer package that enforces CSS quality gates directly from PHP projects.

- 11 GitHub stars and active usage inside custom CI pipelines for multi-brand marketing platforms
- Wraps MDN and W3C specifications to surface actionable errors for large design systems
- Provides zero-dependency binaries and GitHub Pages docs for quick onboarding

ubuntu-config, Personal Tooling

- Present

Infrastructure-as-code flavored bootstrap that standardizes my developer workstations on Ubuntu.

- Automates installation of Docker, Node.js, PHP toolchains, and desktop essentials via scripted tasks
- Documents repeatable steps so consulting engagements start with a consistent developer environment
- Modular Make targets and shell scripts make it easy to extend the setup per client needs

SKILLS

Programming Languages

[Node.js](#)[PHP](#)[JavaScript](#)[TypeScript](#)

Architecture & Design

[SOLID Principles](#)[Clean Code](#)[Clean Architecture](#)[Design Patterns](#)

DevOps & Cloud

[CI/CD](#)[Cloud Native](#)[DevOps](#)[Infrastructure as Code](#)

Methodologies

[Lean](#)[Agile](#)[Developer Experience \(DevX\)](#)

EDUCATION

MIAGE (Computer Methods Applied to Business Management), Master 2, Université Aix-Marseille III Paul Cézanne

Sep, 2007 - Jun, 2010

GEA (Business and Administration Management), DUT, IUT GEA Gap

Sep, 2005 - Jun, 2007

CERTIFICATES

LFC102: Inclusive Open Source Community Orientation, The Linux Foundation

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VOLUNTEER WORK

Co-organizer & Speaker, Cloud Native Aix-Marseille

Oct, 2022 - Present

Promoting cloud-native technologies in the Aix-Marseille region in collaboration with the CNCF community.

- Co-organized 8+ Cloud Native meetups and events attracting 300+ professionals, growing community from 50 to 400+ members in 2 years
- Delivered 6 technical talks on Kubernetes, GitOps, and DevOps practices, receiving 4.5★ average rating from attendees
- Facilitated knowledge exchange between 15+ companies in the region, fostering collaboration and best practice sharing

Professional instructor, Aix-Marseille Université

Jan, 2019 - Present

Teaching software architectures and web development best practices.

- Taught software architecture course to 60+ Master's students annually, covering practical applications of Clean Architecture, SOLID, and design patterns
- Developed hands-on curriculum with 10+ real-world case studies, achieving 90% student satisfaction rating and 85% pass rate
- Mentored 15+ students on thesis projects implementing modern architectures, with 80% securing developer positions within 3 months of graduation

INTERESTS

Cloud Native Technologies

Kubernetes

Serverless

Microservices

CNCF

Developer Experience

DevX

CI/CD

Automation

Productivity Tools

Software Architecture

Clean Architecture

Design Patterns

Domain-Driven Design

Open Source

OSS Contribution

Community Building

Collaboration

Technical Education

Mentoring

Teaching

Knowledge Sharing

Community Speaking

Lean & Agile Methodologies

Continuous Improvement

Team Dynamics

Delivery Excellence

