

# Emilien Escalle

On-Demand CTO & Senior Lead Developer | Node.js & PHP Expert | Clean Code, Autonomous Teams, Scalable Products

16 years of experience · 15+ teams mentored · 20+ projects delivered

On-demand CTO and Senior Lead Dev, I work on projects that need structure and velocity. I combine technical coaching, DevX excellence, and cloud-native modernization to transform product quality and velocity.

Node.js and PHP expert with deep mastery of NestJS, Symfony, and Laravel frameworks. Specialist in scalable architecture and DevX, with a Lean and pragmatic approach to code. I help companies industrialize their development and elevate their teams' technical capabilities, typically reducing deployment time by 50-70% and cutting infrastructure costs by 30-40%.

## Contact

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

<https://www.escemi.com>

## Links

- LinkedIn
- GitHub
- Malt

## Skills

### Core Tech

Node.js (NestJS)  
PHP (Symfony, Laravel)  
JavaScript  
TypeScript

### DevOps & Cloud

Docker  
GitHub Actions  
GitLab CI  
Kubernetes  
AWS  
Cloud Native  
CI/CD  
Infrastructure as Code

## Professional Experience

### On-Demand CTO & Senior Lead Developer ESCEMI

Jan 2009 - Present • Aix-en-Provence, Provence-Alpes-Côte d'Azur, France

Freelance consulting providing technical leadership and development services to help companies meet their digital transformation challenges.

- ▶ 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 CTO & DevX Expert build and run FR

Feb 2020 - Present • Aix-en-Provence, Provence-Alpes-Côte d'Azur, France

Member of Build & Run collective, bringing CTO and Senior Lead Dev expertise to help companies structure, optimize, and scale their technical teams

## **Methods & Leadership**

Clean Code

TDD

SOLID Principles

Clean Architecture

Design Patterns

DevX

Mentoring

Lean

Agile

## **Languages**

**French** Native speaker

**English** Professional working proficiency

## **Education**

### **Master 2 - MIAGE (Computer Methods Applied to Business Management)**

**Université Aix-Marseille III  
Paul Cézanne**

Sep 2007 - Jun 2010

### **DUT - GEA (Business and Administration Management)**

**IUT GEA Gap**

Sep 2005 - Jun 2007

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 • Aix-en-Provence, Provence-Alpes-Côte d'Azur, France

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 • Rousset, Provence-Alpes-Côte d'Azur, France

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 • Rousset, Provence-Alpes-Côte d'Azur, France

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 • Rousset, Provence-Alpes-Côte d'Azur, France

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 • Aix-en-Provence, Provence-Alpes-Côte d'Azur, France

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 • Aix-en-Provence, Provence-Alpes-Côte d'Azur, France

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%

## R&D Developer

### Multiwizz

Apr 2009 - Aug 2009 • Aix-en-Provence, Provence-Alpes-Côte d'Azur, France

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



## Key Projects

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## Air Corsica - DevX Platform Engineering

### Air Corsica

Jan 2023 - Dec 2024

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

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

## TestUnMetier - CTO Accompaniment

### TestUnMetier

Nov 2021 - May 2022

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

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

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-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**

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



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



## Certifications

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### LFC102: Inclusive Open Source Community Orientation

#### The Linux Foundation

Nov 2024