

Guillaume Bailleul - Resume (default)

<https://www.bailleul.dev>



Guillaume Bailleul

Senior Software Engineer

Professional Summary

Passionate problem-solver committed to eliminating accidental complexity and building sustainable systems at scale. Driven by business outcomes rather than code—leveraging modern technologies including AI to deliver fast, maintainable solutions. Architect-first mindset: I design for the long term while executing with urgency. Deep expertise in Elixir as my weapon of choice for building robust, concurrent systems, yet technology-agnostic—I choose the right tool for the job, not the familiar one.

Professional Experience

Senior Software Developer

Andjaro | Paris, Île-de-France, France (Remote, English)
October 2021 – Present (4 years 5 months) | CDI

Andjaro is a leading workforce management platform serving organizations across healthcare, public sector, retail, and facility management. The platform enables real-time management of temporary staffing, workforce scheduling, and operational continuity across multiple employment ecosystems. Recognized as a Core Leader by Fosway Group and Cool Vendor by Gartner.

- Multinational Team Collaboration: Working as a senior engineer within a multinational engineering team collaborating across multiple time zones and cultural contexts
- HR Platform Backend: Co-developed a modern Elixir/Phoenix backend powering the core HR management systems, handling employee data, workflows, availability management, and business logic at scale
- Legacy System Maintenance: Managing and maintaining a Symfony2 legacy codebase, ensuring stability, security, and gradual modernization while supporting existing business operations and integration with partner systems
- Mobile Application Development: Co-architected and built a React mobile application with Clojurescript backend integration, enabling HR managers and employees to manage availability, missions, and workforce operations on mobile devices
- Integration & Ecosystem: Designed interfaces with external HR systems (payroll, ERP, planning, SIRH) to ensure seamless data flow and operational continuity
- Technologies: Elixir, Phoenix, React, Clojurescript, Symfony2, PostgreSQL, Docker

Independent Software Engineer

Independent | Lille Region, France
December 2019 – October 2021 (1 year 10 months)

Pagily is a document management platform (GED - Gestion Électronique de Documents) that simplifies paperless workflows with universal scanning, intelligent archiving, and secure printing. The platform serves organizations looking to eliminate manual document handling through a unified 3-in-1 solution.

- Lead Development Role: Led technical direction and architecture decisions for the product
- Backend Architecture: Architected and developed robust backend services using .NET enabling document processing, OCR indexing, and secure data management
- Frontend Development: Built full-featured user interfaces with React for the web platform
- Mobile Development: Architected and developed the React Native mobile application enabling document scanning, archiving, and printing from any device
- Document Processing Pipeline: Implemented ML/OCR-driven document classification and automatic indexing for intelligent full-text search
- Integration Architecture: Designed seamless integration with multifunction printers and scanning devices for universal document capture
- Security & Compliance: Ensured legal document validity preservation and secure document handling across the platform
- Scalability: Built infrastructure to handle high-volume document processing and storage
- Team Leadership: Provided technical guidance and mentorship to development team members
- Technologies: .NET, C#, React, React Native, PostgreSQL, OCR/ML

Software Developer

Shipfix (by Veson Nautical) | Paris, Île-de-France, France (Remote, English)
 April 2019 – November 2019 (8 months)

Shipfix is an AI-powered platform transforming maritime chartering and operations through intelligent email collaboration, automated data extraction, and trading analytics. The platform serves leading shipping companies globally, streamlining cargo opportunities discovery, vessel trading, and pre-to-post-fixture workflows.

- Early-Stage Development: Contributed to product architecture and core features during critical early-stage development
- AI-Driven Email Extraction: Implemented ML-powered email parsing and intelligent data extraction systems to automatically identify cargo and tonnage opportunities from high-volume communications
- Backend Architecture: Designed and developed backend services using Python and Elixir to power real-time data processing and market intelligence features
- Frontend Development: Built interactive user interfaces with Vue.js enabling seamless chartering workflows and opportunity matching
- Trading Platform Features: Contributed to the development of a unique trading platform providing real-time market intelligence, cargo deduplication, TCE calculations, and voyage estimation capabilities
- Collaboration Tools: Developed chat and messaging features enabling real-time team collaboration for chartering and operations teams across global offices
- Real-Time Analytics: Built systems to provide instant cargo and tonnage matching against user criteria
- Technologies: Python, Elixir, Vue.js, ML/AI, PostgreSQL, Docker

Senior Software Developer

Agence Dernier Cri | Lille Region, France (Remote, English)
 August 2016 – April 2019 (2 years 9 months)

Mailjet SendAPI v3.1 Development

- Major Project: Architected and implemented the Mailjet SendAPI v3.1 in Go (<https://dev.mailjet.com/email/guides/send-api-V3/>), now the foundational API for millions of email requests globally
- High-Scale Architecture: Designed a robust, distributed system capable of handling millions of email requests with high reliability, performance, and availability guarantees
- Legacy System Integration: Introduced Cassandra as a message store to bridge the modern SendAPI v3.1 with legacy Freepascal systems, enabling seamless data flow between old and new infrastructure without disrupting existing operations
- Production Excellence: Delivered a production-grade API with comprehensive monitoring, error handling, and rate-limiting mechanisms
- Impact: This API became a critical component of Mailjet's infrastructure, enabling their customer base to reliably send transactional and marketing emails at scale

Leroy Merlin Business Monitoring System

- Full-Stack Development: Architected and built a real-time monitoring system for Leroy Merlin business units using Elixir/Phoenix backend and React Native mobile application (and also an ESP32 driven Light Saber alerting system)
- Real-Time Analytics: Designed distributed systems to track and visualize key business metrics across multiple retail locations in real-time
- Mobile-First Approach: Developed React Native mobile app enabling managers to monitor business performance on-the-go with push notifications and real-time alerts
- Scalability: Built backend infrastructure capable of handling high-frequency data ingestion from multiple business units
- Impact: Enabled Leroy Merlin managers to gain actionable insights into operational performance across their business units
- Technologies: Elixir, Phoenix, React Native, PostgreSQL

Backend Consulting - Cityscoot

- Architected and developed backend services for an electric scooter sharing platform
- Designed scalable APIs to handle high-traffic IoT device telemetry and user requests
- Optimized database queries and implemented caching strategies

Consulting - Les Hôtels très particuliers

- Crisis Recovery: Inherited a critical project with significant technical debt and broken infrastructure following the departure of the previous backend developer; financial partner was strongly considering shutting down the project, but through stabilization and modernization efforts, secured the project's future
- System Stabilization: Diagnosed and fixed critical issues in the legacy codebase, restored infrastructure stability, and implemented immediate solutions to unblock development
- Project Modernization: Improved the backend architecture to align with business objectives, refactored core systems for maintainability and performance
- Knowledge Transfer: Established comprehensive documentation and best practices, successfully onboarded and mentored a replacement developer to ensure continuity
- Team Building: Agence Dernier Cri helped to find a new developer for the project with a highly reduced technical debt.

Core Technical Contributions

- Backend Development: Built robust systems with Elixir and Phoenix framework
- Frontend Development: Developed modern UIs with React and TypeScript
- Mobile Development: Created cross-platform applications with React Native and TypeScript
- Message Queuing Architecture: Introduced Cassandra as a distributed queue system, replacing traditional queuing solutions with a scalable, distributed approach for high-throughput event processing
- DevOps Process Improvement: Enhanced collaboration and workflows between operations and development teams, establishing best practices for deployment, monitoring, and incident response
- Systems design focusing on performance, reliability, and maintainability
- Technologies: Elixir, Phoenix, React, React Native, TypeScript, Go, Cassandra, PostgreSQL

Software Developer

Elicity | Lille, France

December 2013 – July 2016 (2 years 8 months)

- Core engineer on a high-traffic IoT platform serving thousands of connected devices
- Event System Architecture: Designed and implemented an IFTTT-like event processing system enabling complex automation workflows
- Database Migration: Led migration from MySQL to Cassandra and MongoDB, improving data availability and scalability for distributed systems
- Microservices Transformation: Spearheaded split from monolithic Symfony2 application to microservices architecture, reducing coupling and improving deployment velocity
- API Rewrite: Migrated Doctrine 2 persistence layer to a high-performance Golang REST API, improving response times and throughput
- Distributed IoT Platform: Architected and developed a message broker-based distributed platform using

Java and RabbitMQ handling high-traffic sensor data ingestion

- Cloud API Maintenance: Maintained and improved the Symfony2 Xee Cloud API, ensuring 99.9% uptime
- Developer Tools: Built internal support and monitoring tools in NodeJS
- Notification System: Designed and rewrote APN and GCM push notification REST APIs, improving delivery rates
- DevOps: Implemented Docker-based deployment pipeline with Jenkins CI/CD and Ansible orchestration
- Performance Optimization: Improved platform scalability to handle 10x growth in connected devices
- Technologies: Java, Go, NodeJS, PHP (Symfony2), RabbitMQ, Cassandra, MongoDB, MySQL, Docker, Jenkins, Ansible, Python

Technical Skills

Concurrent backends: Elixir, Phoenix/OTP, PostgreSQL, Redis, RabbitMQ, Redpanda (Kafka) — for fault-tolerant systems and high-throughput event processing.

Modern product frontends: TypeScript, React, React Native, Next.js, CSS/SCSS, ClojureScript, SwiftUI — for maintainable interfaces and fast product iteration.

Scalable APIs & integrations: Go, Node.js, Symfony2, Java, C#, .NET, API Design — for clear service contracts and robust integration-heavy platforms.

Data platforms: PostgreSQL, MongoDB, Cassandra, MySQL — for transactional and distributed workloads depending on consistency, scale, and access patterns.

Architecture & delivery: System Architecture, Microservices, Distributed Systems, IoT Platforms, Docker, Kubernetes, Jenkins, Ansible, AWS, GCP — for sustainable systems and reliable delivery at scale.

Key Achievements

- Scaled IoT Platform: Architected systems processing millions of sensor data points daily across distributed infrastructure
- API Development: Implemented Mailjet SendAPI v3.1 capable of handling millions of email operations at scale
- System Modernization: Successfully migrated monolithic applications to microservices, reducing deployment time by 70%
- Database Optimization: Managed complex data migrations supporting multi-database strategies (MySQL, Cassandra, MongoDB)
- Team Leadership: Mentored developers and established architectural best practices across organizations
- Cross-stack Expertise: Demonstrated proficiency across backend, frontend, and mobile development with modern frameworks

Languages

- French: Native
- English: Professional Working Proficiency