

Nicolas Vaccari

Team Lead & Tech Lead | Full-Stack & Mobile/Flutter | System Design & Software Architecture | Infrastructure

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Summary

Engineering Team Lead whose strength is technical leadership and strategic decisions — technical, design, and product — that drive concrete business results. At Italy's market-leading collective-catering SaaS (~90% market share, 1M+ DAU) I lead a cross-level 8-engineer squad, owning system design, software architecture, refactoring, and technology choices. Hands-on with equal depth across backend (PHP, Go, Python) and mobile (Flutter), with web (TypeScript/React) in support. Recent impact: median response time ~50–70%, ~90% fewer outages and incidents after a cloud migration, sprint completion up to ~70%; hiring, incident command, and executive stakeholder management (CEO, CFO, COO).

Leadership Experience

Ristocloud Group S.r.l., Team Lead – Verona, IT

Nov 2025 – present

- Promoted to formalize team leadership while retaining full authority over refactoring and technology, design, and product choices that steer company roadmaps; cross-level 8-engineer squad, some hired personally, with the team and executive stakeholders aligned on engineering execution.
- Code reviews and mentorship across the full stack — including architecture and system design — to grow the team's engineers.
- Introduced and ran Agile/Scrum, quarterly GitFlow releases, and Jira/Confluence QA workflows, managing standups, sprint planning, backlog refinement, and retrospectives and aligning engineering with executive stakeholders (CEO, CFO, COO).
- Raised sprint completion to ~70% and cut release bugs from 30–50 to 10–20 per quarter through per-PR CI gates (85% coverage), PHPStan/PHPCS, manual QA checklists in Jira, and more stable quarterly rollouts.
- Drove company-wide AI adoption (Gemini, Claude), engineering code rules, and agent skill guidelines; recently led a major refactoring to introduce React into the consumer-facing front office, in a legacy mixed JavaScript/TypeScript environment, using strangler and KISS patterns with full WCAG 2.1 accessibility.

Ristocloud Group S.r.l., Tech Lead – Verona, IT

Oct 2023 – Nov 2025

- Owned refactoring and technology decisions; designed and built a production online/offline fiscal cash register for the Italian market (RT, corrispettivi, AE compliance): Flutter on Sunmi POS, offline backend sync, telematic receipt printer, and payment terminal; ~50 devices live, 10k+ transactions/day.
- Led ~2M-line PHP modernization (PHP 7.3 → 8.3) with strangler-pattern Symfony on CodeIgniter, cutting median response time 50–70% and raising PHPStan from level 5 to 8.
- Designed and integrated core product systems from functional and non-functional requirements and the related architectural choices: an end-to-end warehouse system and a flexible meal-booking engine for schools, hospitals, and collective catering.
- Shipped Kubernetes microservices for critical product domains: Go SPID/CIE proxy (~1k req/mo), YOLOv8 object detection for dish recognition (95% read accuracy), ISO 14067 CO₂ calculator (100k dishes), and Python FCM push queue (50 msg/s peak).
- Migrated VMware workloads to Google Cloud with HA and multi-region DR, achieving ~90% reduction in downtime and incidents within 12 months post-migration.
- Built observability and operational processes for ISO 27001/NIS2: Sentry, custom error pipelines, searchable dashboards, alerting, health checks, postmortems, and incident command with CEO and COO.

Ristocloud Group S.r.l., Software Engineer – Verona, IT

May 2020 – Oct 2023

- Led a 2-engineer Flutter team (500k combined DAU, 0.02% crash rate) on real-time meal and seat booking with concurrency control, satisfaction collection on dishes/services, and a digital wallet with payments; BLoC, feature-folder architecture, Material theming, and unit/widget/integration tests.
- Built queue management and capacity control for corporate restaurants: digital turnstiles for access verification and kitchen handhelds updated in real time with incoming bookings.
- Built platform observability (searchable event logging, Sentry with ISO 27001 error persistence, Discord health alerting), cutting incident triage from hours to minutes.

Web2Life SNC, Software Engineer – Verona, IT

Dec 2018 – May 2020

- Cross-platform Flutter development for the first consumer meal-booking apps in collective catering.

Skills

Leadership: team leadership, technical leadership, code review, mentorship, hiring, Agile/Scrum, Jira, Confluence, GitFlow, incident command, postmortems, executive stakeholder management

Engineering: system design, software architecture, microservices, REST APIs, OpenAPI, SDLC, CI/CD, IaC, TDD, tech debt reduction, observability, live operations, ISO 27001/9001 compliance, NIS2

ML & AI: PyTorch, YOLO, Label Studio, AI-assisted development (Gemini, Claude)

IoT & Embedded: Arduino, ESP32, CAN bus, MQTT

Stack: PHP/Laravel/Symfony/CodeIgniter, HTML/CSS/JavaScript, TypeScript, React, Flutter, Python/FastAPI, Go, MySQL, PostgreSQL, Redis, GCP, Kubernetes, Docker, Terraform

Spoken Languages: Italian (native), English (B2 certified, C1 in progress)

Personal Projects

Personal Chef & Food Social App

Creator · Flutter, BLoC, FastAPI, SQLAlchemy, PyTorch, OpenAPI, Kubernetes, OpenTofu, Hetzner Cloud

- Building a GialloZafferano-style food social network with AI recipe generation tailored to tastes, dislikes, and dietary allergies.
- Flutter + BLoC client with OpenAPI-generated SDK; dual FastAPI Python backends (platform API, PyTorch ML service for recipes).
- Deployed on Kubernetes on Hetzner Cloud with OpenTofu IaC and autoscaling.

H0 Smart Model Railway Layout

Creator · Java, Arduino, ESP32, C++ , CAN bus, MQTT

- Built a 1:87 H0 scale model railway layout with full smart-city integration and automated train operation.
- Microcontroller network on Arduino and ESP32 over CAN bus and MQTT for coordinated lighting, signaling, and train control.
- Centralized Java backend coordinating all devices through HTTP calls and MQTT messaging.

Minecraft Server Network

Creator · Java, Spring Boot, gRPC, Protobuf, NATS, Redis, SQL, TCP Proxies, GitHub Actions

- Built and operated a Minecraft server network peaking at ~80 concurrent players.
- Spring Boot microservices with gRPC/Protobuf for high-concurrency socket handling and distributed patterns.
- NATS for inter-server message distribution and Redis for distributed data caching.

Education

University of Verona, Master’s Degree in Computer Science and Engineering (LM-18)

Focus on AI, machine learning, cybersecurity, cryptography, big data, and GPU parallel programming.

Verona, IT

Oct 2025 – present

University of Verona, Bachelor’s Degree in Computer Science and Technology (L-31)

Completed while working full-time.

Oct 2018 – Mar 2024