

# Octavian Cioaca

## SENIOR / STAFF AI PRODUCT & PLATFORM ENGINEER

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### PROFESSIONAL SUMMARY

I've been writing CSS and JavaScript since 2006 and I still write code every week. I'm lazy in the useful way: I learn new tools fast because I hate doing the same thing twice. I started in the browser, then APIs, then the platforms underneath. Now I build the infrastructure that runs models, in 20-person startups and on systems with 145,000 users. Give me an unclear problem and I own it end to end: contracts, the first version that works, production, and something your team can run. Coding agents do most of the typing now. I still read all of it, and I decide what ships.

### ENGINEERING FOCUS

- **Backend and platform:** distributed systems, service boundaries, API contracts, tenant isolation, security, observability, CI/CD.
- **Agentic AI systems:** agent orchestration, retrieval and embeddings, model gateways and catalogs, guardrails, evals with golden datasets and pass/fail thresholds, proof packages for model audits.
- **Developer platforms:** API schemas, OpenAPI 3, GraphQL, idempotent ingestion, signed webhooks, typed SDKs, monorepos and building with AI coding agents.
- **Specification and standards:** write the documents a team builds against - API contracts, engineering rules, threat models, security control lists that cite their sources - and the review process that enforces them.
- **Modernisation:** legacy to cloud, technical due diligence, clearing defect backlogs, rewriting in steps not big bangs.
- **Quality and operations:** TDD/BDD with Mocha, Chai, Jasmine, Karma, Playwright and Protractor; Linux and web hardening, containers, accessible interfaces (WCAG/WAI-ARIA), SEO, and debugging in production.
- **Leadership and learning:** mentoring, code review, public speaking, pulling late deliveries and incidents back on track. Currently learning Rust, Databricks and Omnigent.

### PROFESSIONAL EXPERIENCE

#### Director of Software Engineering (hands-on) - DOMSELARDI

PARIS, FRANCE | FEB 2024 - PRESENT

I own the platform at DOMSELARDI end to end - architecture, delivery and security - and I still write the code.

- **0-to-1:** took an AI agent platform for a private equity firm from one spec.md file to production - agents working from the spec, contract tests and review gates deciding what shipped, and the calls about what not to build.
- Built an LLM gateway and model catalog with guardrails over the main model SDKs, and the eval harness for four production AI features: versioned golden datasets, per-feature pass/fail thresholds (WAPE against a naive baseline, recall, exact-match extraction, share of planted bugs caught) and a scoreboard. If a score drops, nothing ships.
- Built hybrid retrieval on PostgreSQL: pgvector with an HNSW index plus full-text search, merged by reciprocal-rank fusion. It answers "no good matches" rather than padding, and permission checks run inside both searches, so rows a user may not see never show up.
- Built AI governance into the product: every number in generated text is checked against source data, and approval is blocked until they all match; each approval saves the model, prompt version, input hash and how much a human edited it; models run only on the local machine, checked on every call, so data residency holds as the code changes.
- Built the REMIS event hooks, versioned taxonomies and event hashes, sealed into timestamped proof packages that verify offline without exposing business data.
- Built the Level Zero REST API that takes in downlink frames, EO/SAR metadata and live-track data, so defence users can detect drone signal spoofing; the inputs are merged into one signed GeoJSON product with a public verifier.
- Built the multi-cloud infrastructure for the paid tier of a leading open-source agentic-development platform: 12,000 VMs across four cloud regions, all as infrastructure as code with cloud-init and Azure ARM templates.
- Built the developer API - schema-defined contracts, RBAC routes, idempotency, signed webhooks, typed SDKs - and enterprise SSO from the protocol level up: OIDC with PKCE S256, JWKS and strict ID-token validation; SAML 2.0 with XML schema checks and replay detection; per-tenant tokens; refresh tokens are hashed, rotated and revoked on reuse.
- Define how AI coding agents work on our production code: an 800-line rulebook covering which instructions win, what each task may change, rules against shortcuts, and an independent review before anything is committed; plus a setup where agents from different vendors work side by side, each in its own git worktree.

**Technologies:** TypeScript, Node.js, Bun, Vue.js, SolidJS, Express, Next.js 16 (App Router), React 19, Vite, Tailwind CSS, shadcn/ui, Python with FastAPI and Celery, SQL/PostgreSQL/PostGIS, ClickHouse, MongoDB, Drizzle ORM, Supabase,

TypeORM, SQLite, Snowflake, Databricks, Redis, BullMQ, Kafka, pgvector.

**Tools and infrastructure:** Docker, Nginx, Let's Encrypt, Fail2ban, D3.js, ECharts, GSAP, Kubernetes with Helm, Terraform, SST, GitHub Actions, pnpm/Turborepo, cloud-init, AWS, Azure, GCP, Sentry, Datadog, Prometheus/Grafana, OpenTelemetry, Vercel, Playwright, REST APIs, GraphQL, OpenAPI 3, JSON Schema, GeoJSON, MQTT, gRPC/protobuf, RFC 7807, Ed25519, SHA-2/3, RFC 3161, payment integrations, API metering.

**AI and models:** Flowise open-source/SaaS Cloud contribution, LangChain Core, RAG, vector search, embeddings, pgvector, Qdrant, Pinecone, FAISS, LLM gateway, model catalog, guardrails and evals, AWS Bedrock, Anthropic Claude SDK, OpenAI SDK, Google Gemini, self-hosted open-weight models.

## Director Industrial Digital Transformation & Software Engineering - Inetum

PARIS, FRANCE | SEP 2017 - JAN 2024

I led teams of 10 to 30 people, spread across countries, on finance and public-sector platforms. Cloud migration, analytics, applied AI and DevSecOps, with my hands still in the code.

- Migrated a bank's legacy finance suite, 145,000 users, to Azure microservices, with source control, static analysis, automated tests and CI/CD behind it.
- Got stalled regulated programmes moving again by consolidating the batch-migration path and clearing the defect backlog.
- Ran 120+ technical interviews for engineering, support and leadership roles.
- Shipped secure, high-traffic public-sector platforms for public finance, digital archiving and emergency health, used by authorities, municipalities and health departments nationwide.
- Improved delivery KPIs, grew the innovation budget by ~EUR 4M, cut ~EUR 2M of OPEX on an insurance product, led the UiPath and Blue Prism RPA Centres of Excellence, and drove applied AI/ML through Addstones.

**Technologies:** Docker, Nginx, Java, Django, Node.js, TypeScript, Ruby on Rails, Celery, Kafka, GraphQL, PostgreSQL, Oracle, MongoDB, ClickHouse, Redis, AS/400, IBM Power 9, Kubernetes, Terraform, AWS, Azure, GCP, React, Angular, Vue.js, SolidJS, CI/CD, static analysis, Splunk/SIEM, Datadog, Prometheus/Grafana, OpenTelemetry, RPA, SEDA, RGS, REU/INSEE, IBM i, Alfresco, SLO/SLA, incidents (N1/N2/N3), DevSecOps.

## Software Architect Team Lead - CustomerMatrix

PARIS, FRANCE | JUL 2015 - JUL 2017

I owned the frontend architecture of a B2B enterprise intelligence product: UI structure, reliable builds, and search-backed workflows that stayed maintainable.

**Technologies:** Angular, RxJS, Python, Elasticsearch, Solr, RDF/OWL concepts, SPARQL-oriented data models, frontend build systems, enterprise UI architecture, WCAG/WAI-ARIA accessibility, SEO.

## Senior Software Technical Lead - Ifeelgoods

PARIS, FRANCE | MAY 2014 - JUN 2015

I worked on the front-end team of a B2B rewards SaaS platform: user workflows, E2E tooling and integrations with large retail marketplaces.

**Technologies:** AngularJS, JavaScript, Ruby on Rails, HTML/CSS, Jenkins, Protractor, E2E automation tooling, retail marketplace API integrations, CRM/rewards workflows.

## Earlier Engineering Roles

AUG 2007 - APR 2014

This is where I learned to ship, and to make interfaces run at 60fps before that was easy. Banking, e-commerce, publishing, luxury, hospitality, medtech and campaigns for Orange, Verseau Paris, Nemea Bank, eRepublik Labs, Yahoo, eMAG and Net Rom Business. Yahoo reached 8.2M monthly users, eRepublik 6M players in 70 countries, and at Nemea Bank I helped build a pan-European online bank and its real-time payment product from nothing.

## DISTINCTIONS & LANGUAGES

- Open source: Splunk Visualization Toolbox since 2023; Flowise open-source and SaaS Cloud contribution; earlier Angular UI Material and Benchpress.
- Community: Java Challenge France 2019 question author; AI/ML Hackathon mentor and jury, Université Paris-Dauphine; public speaking and startup advisory.
- Awards: Cannes Lions (shortlist, 2010), Sabre European Awards (Gold, 2010), Business Review Awards (Online Project of the Year, 2010), IPRA Golden Trophy (2009); Codility Golden Certificate (Omega, 2013).
- Certifications: AWS Solutions Architect (Professional & Associate), AWS Developer & SysOps Administrator (Associate); TOGAF; ITIL 4 Foundation; CISA; Oracle Database 12c SQL; Docker; six UiPath RPA Academy diplomas (2018); cloud security (2020-2021).

**Languages:** Fluent in English, French, and Romanian.