

MARTIN POIROUX

Software engineer · Full-stack and algorithms · AI-augmented development

TOULOUSE, FRANCE · REMOTE FROM FRANCE, OR ON SITE IN TOULOUSE

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Day-to-day developer, and de facto technical lead, of a fibre-network design product of more than five hundred thousand lines of C#, deployed at telecom operators, and on the TypeScript and Azure chain around it. The domain is geospatial throughout: routing, cabling, service areas, connectivity. Alongside it, since 2022, a C++ chess engine and products taken end to end, from idea to production.

◆ STACK

LANGUAGES	TypeScript · C++ · C# · Rust · Python · C · JavaScript · AssemblyScript · Kotlin · OCaml · PHP · GLSL · NetLogo
FRAMEWORKS AND PLATFORMS	.NET · WPF · Blazor · EF Core · Next.js · React · React Native · Astro · NestJS · Node.js · Expo · Tailwind · Express · raylib · Unity · Phaser · Three.js · SDL2 · WebAssembly · Pygame · Android · Processing · Arduino
DATA AND INFRASTRUCTURE	PostgreSQL · SQLite · Supabase · Azure SQL · Cosmos DB · Firestore · Firebase · Azure · Azure Pipelines · Vercel · Nginx · Stripe · Socket.IO · WebRTC · CUDA · numba · NumPy
GEOSPATIAL	ArcGIS Pro · QGIS · shapely · networkx · GDAL
MODELS AND AGENTS	Claude Code · Ollama · llama.cpp · LM Studio · PyTorch · RAG · Microsoft Graph
LANGUAGES	French (native) · English (fluent, C1+) · German (basic notions)
ELIGIBILITY	French national · EU work authorisation

◆ EXPERIENCE

2023 →	SETICS Developer on the software portfolio of a Toulouse company in fibre networks, and its de facto technical lead. ◆ Sttar, the flagship product: over five hundred thousand lines of C# and WPF, deployed by telecom operators in Europe, the United States and Asia. ◆ Main algorithm made modular, optimisation pipeline designed end to end (case-based reasoning, Delaunay triangulation): a critical operation went from several minutes to a few seconds. ◆ Technical lead in practice: daily review, architecture decisions, licence operations, coordination of an external contractor through a single point of contact.
2026 →	SAAS PRODUCTS Three sold products whose roadmap the company decides and whose technical choices sit with the position. ◆ FiberState (TypeScript, React, .NET, Azure): field tracking of fibre rollout, then a native physical inventory, dependency scheduling, offline-first field work, as-built reconciliation. ◆ STEM and the network-supervision component (NestJS, Next.js, Cosmos DB): multi-tenant platform and supervision sold as a service, API and frontend as separate services on Azure App Service.
2026 →	INTERNAL WEB APPS Three internal tools proposed and written alongside the rest, outside the roadmap. ◆ Licensing chain rebuilt from scratch (.NET, Blazor Server, EF Core, Azure SQL): request, template-prefilled quote, human sales validation, then automatic generation and delivery. ◆ Unified portal in Blazor Server with its single sign-on; internal assistants (prototype) for Teams, multi-agent on Claude, retrieval-augmented search and the Graph API.
2026 →	GIS TOOLING Two GIS extensions in two languages, an ArcGIS Pro add-in in C# and a QGIS plugin in Python, on top of a computation core that knows neither. ◆ WKB exchange boundary, core depending on shapely and networkx alone: a business-logic fix lands on both sides instead of being written twice. ◆ The QGIS plugin covers QGIS 3 and QGIS 4 from a single delivery.
2023	FINAL-YEAR INTERNSHIP ◆ Six months of development in Germany, before being hired in Toulouse.
2022	SILVACO INTERNSHIP ◆ Integrated-circuit netlist reduction and the simulations around it, in Python and XML, inside the pre-release test framework.

◆ PROJECTS

2022 →

OPTICHESS

Chess engine and analysis interface written from scratch in C++ with raylib, without a line borrowed from another engine.

- ◆ Hybrid search, a UCT-style tree above an alpha-beta and a quiescence, rather than the more common plain alpha-beta.
- ◆ Hand-written evaluation rendered as outcome probabilities; runs as a bot on Lichess, so against real opponents, at real time controls and under a real protocol.

[GITHUB.COM/POIROUXMARTIN/OPTI_CHESS](https://github.com/poirouxmartin/opti_chess)

2026 →

BLITZVOLLEY

Two-player online volleyball game in the browser: designed, written, deployed and operated end to end.

- ◆ Real time: state synchronisation, server authority, matchmaking, Elo rating, bots and a career mode.
- ◆ Self-administered server: updates, monitoring, backups, incidents.

[BLITZVOLLEY.COM](https://blitzvolley.com)

2026 →

LUCENA

Chess training platform in Next.js and Supabase, in production.

- ◆ Game import from Lichess, Chess.com or a PGN file: common format, duplicates discarded, resynchronisation limited to what is new.
- ◆ The sign-in link sent by email broke outside the originating browser: authentication flow changed rather than patched.

[LUCENACHESS.COM](https://lucenachess.com)

2026 →

CONFORMERGPD

GDPR compliance service in production since July 2026.

- ◆ Site scanner producing a report scored by category, embeddable cookie banner in plain JavaScript inside a Shadow DOM, legal document generator.
- ◆ Registered micro-enterprise, European hosting, row-level data isolation in the database.

[CONFORMERGPD.FR](https://conformergpd.fr)

2026 →

LOCAL FACTORY

Software workshop putting open-weight models to work on a local GPU: a specification goes in, a diff comes out, the tests decide.

- ◆ A ladder of models, the smallest trying first and only failures moving up a rung, and guardrails that execute rather than being written on a wall.
- ◆ A register of optimisations where ideas are marked falsified when the numbers say so.

2026 →

CLAUDE-REMOTE

Orchestration layer on top of Claude Code: several agent sessions in parallel, each isolated in its own worktree.

- ◆ Graph scheduler, forced compaction of idle sessions, supervisor that restarts what falls over.
- ◆ PWA and push notifications: approving a tool call from a phone stops a session started in the morning from waiting until the evening.

2024 →

AI-ASSISTED CODING

Daily practice since May 2024, followed along the whole curve: autocompletion, then agents, then custom layers on top.

- ◆ A specification, diff, regression, review loop, with a second reviewer taken from a different model family, because a model reviews its own work badly.
- ◆ No productivity figure claimed: the verification flaws in the custom harness all leaned towards success, and without a clean protocol a percentage means nothing.

2026 →

MARTINPOIROUX.COM

Portfolio in Astro and Tailwind, fully static, bilingual, with a CV and a score reader rendered from the same content.

- ◆ Editorial rules execute rather than being written down: fact parity across both languages, French typography, drafts excluded from the production build.

2026 →

OCTAVE

Personal assistant reached from a phone, in writing or by voice: incoming email triage, memory, actions gated on approval.

- ◆ Every outgoing action waits for explicit approval: the model has no tool able to confirm what it proposes.
- ◆ Dictation transcribed on the machine: word error rate down from 20.8% to 4.1%, measured on 61 real voice notes.

◆ EDUCATION

2020-2023

ENSIIE, ENGINEERING DEGREE

- ◆ JIN major: Digital Interaction and Video Games.
- ◆ The school chess association, EchequillE: OptiChess's first real opponents.

2021

BSC IN MATHEMATICS

- ◆ A double degree run alongside the engineering school.