

MOHAMED DOUARÉ

Platform and Applied AI Engineer: agentic systems in production, with guardrails

CTO and co-founder of Ciney Labs · autonomous delivery factory · regulated domains (education, pharmacy, non-profit)

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PROFILE

I build systems where the AI does not generate freely: it executes a constrained pipeline. Schema-validated structured outputs, business documents (PDF, Word, Excel), de-identification at the source, immutable audit log, cost accounted per file. I operate an agentic delivery chain (idea → design → tests → reviewed PR) across 17 repositories, with a human only at the gates that matter: review and promotion to production. Long-running CIAUD mandate and founder activities (Gulpes, Ciney Labs) run in parallel with my CLÉ positions.

SIGNATURE SYSTEMS

AI Product Factory (Ciney Labs, 2026)

- Designed and operate an agentic delivery factory on a 24/7 server that can be driven from a phone: market discovery, requirements, design in Figma or Claude Design, test-driven build, review/fix loops, one-command PRs across 17 GitHub and Azure DevOps repositories.
- Custom skills (discover, figma-studio, design-handoff, research-document), per-repository policy (dev branch, mandatory review, manual production promotion). Results: corporate website shipped in 8 days (32 commits), the Pilume platform (5 applications, 66 test files) in 10 weeks.
- Why a human only at the gates: keep the agents' cadence without giving up accountability for what reaches production.

Aria: funding-opportunities engine (CIAUD, 2026)

- Designed a call-for-proposals → funder-template pipeline: ingestion (PDF, DOCX, XLSX), structured extraction, template reading at OOXML and cell level, slot-by-slot drafting inside the funder's own files, then notified human review.
- Anthropic SDK with Zod-validated outputs, prompt caching, confidence and to-verify list per slot, cost accounted per opportunity; facts missing from the knowledge base become to-complete markers, never inventions. Daily watch over 3 source types (UN Partner Portal, HTML, RSS).
- Why structured output rather than a chatbot: the deliverable is the funder's file, an interface contract, not text to copy over.

Pilume: AI-assisted medication schedules (Ciney Labs, 2026)

- Delivered a pilot platform for Quebec community pharmacies: pharmacist portal, desktop app, patient web and mobile, API; 15 ADRs, 66 test files.
- Hybrid engine: unit-tested deterministic scheduler, Claude Haiku for the clinical rationale only. De-identified payload (age band, no identifiers), pharmacist validation enforced in the API and covered by a non-negotiable test, immutable audit log (Law 25, PIPEDA).
- Why hybrid rather than 100% LLM: testability and clinical accountability; the model explains, it never decides the schedule.

AI GOVERNANCE IN PRODUCTION

- Structured outputs and schema validation (Zod) on every call; prompt caching; token and cost accounting per file; model policy per task (Opus for document extraction, Haiku for explanations).
- De-identification at the source, mandatory human review, immutable audit log, versioned skills and policies per repository, automated review loops before any PR.
- What I refuse to automate: promotion to production and validation of the business act (pharmacist, proposal reviewer).
- Published agent harness (douare.dev/work): isolated worktree, no access to secrets or production data, merges to dev only, human approval of risky actions, stop on command.

EXPERIENCE

2025 - present: CTO and co-founder, Ciney Labs Inc., Gatineau (custom software and AI systems)

- Architecture and technical leadership; flagship product Aria; designed and operate the AI Product Factory; delivered Pilume.

Mar. 2021 - present: Principal DevOps Engineer (since 2024), previously full-stack software engineer then analyst, Centre de Leadership et d'Évaluation Inc. (CLÉ), Ottawa

- Delivered Gestra, a containerised data platform (12 Prefect flows, dbt, PostgreSQL, Ansible, Power BI) deployed at several clients, ingesting two client SQL Server stores through tunnels and bastions.
- Designed and built SGDI, a secure identity-census platform used by 13 Ontario school boards to meet the Anti-Racism Act, 2017 (mandatory collection of identity-based and race-based data by January 1, 2023): CI/CD, IaC, data pipelines, e-mail, user management.
- Designed client CI/CD pipelines and an internal data-pipeline generator; Power BI dashboards deployed into client infrastructure.

Sept. 2019 - present: Developer and Information Systems Administrator, CIAUD (multi-country humanitarian non-profit), headquarters, Canada

- Designed, built and operate Aria, a bilingual integrated management platform: 18 modules (HR, contracts, leave, timesheets, evaluations, projects, audits, tickets, recruitment, tenders, inventory, e-signature, reporting), 13 RBAC roles, 63 data models, 21 ADRs, 6 releases shipped; Azure Front Door + WAF, App Service, Cosmos DB, Service Bus, Terraform, Azure Pipelines.
- Set the IT strategy and cybersecurity policies; Office 365 and Entra ID; user-lifecycle and SharePoint automation through Microsoft Graph (Python).

Jan. 2019 - present: Founder, Gulpes, Canada

- Gulpes app (Flutter, iOS and Android: subscriptions, audio, notifications) and Hearth, a private family platform (Next.js, Hono, PostgreSQL, Expo; Deepgram transcription, per-family envelope encryption, Stripe; 17 ADRs, 176 commits).

2018 - 2019: Early roles, Mokau Invest and MBTC (Casablanca), CIAUD Bamako, ISO 27001 / EBIOS information-security internship at ONEE

DOMAIN: AI AND DATA IN REGULATED ENVIRONMENTS

AI and data platforms under Law 25 / PIPEDA and provincial standards: de-identification at the source, RBAC, envelope encryption, immutable audit, WCAG 2.1 AA, ISO 27001 practices, a human accountable for the business act. Ground: Ontario education (13 school boards, Anti-Racism Act, 2017), Quebec community pharmacy, non-profits and international funders.

TECHNOLOGIES

AI and agents: Claude, GPT, Gemini, Grok APIs (structured outputs, prompt caching, PDF), Claude Code (skills, subagents, Remote Control), Model Context Protocol, Deepgram, cost governance

Azure and AWS cloud: App Service, Front Door + WAF, Cosmos DB, Service Bus, Key Vault, Static Web Apps, Entra ID, Communication Services; AWS

IaC and CI/CD: Terraform, Ansible, Docker and Compose, Kubernetes, Azure Pipelines, GitHub Actions, OIDC, PM2, Caddy, Linux, mobile releases (TestFlight, Google Play)

Product and data: TypeScript, Python; Next.js, NestJS, Hono, Flutter, Expo, Electron; PostgreSQL (Drizzle, Prisma), MongoDB / Cosmos DB, MSSQL; Prefect, dbt, Power BI

Security: OAuth2 / OIDC, MFA, RBAC, envelope encryption, audit logs, ISO 27001, Law 25 / PIPEDA, Anti-Racism Act, 2017

EDUCATION

- Master's in Information Science and Technology, Université du Québec en Outaouais, 2021 (thesis on SQL query optimisation, grade Excellent; machine-learning projects).
- State Engineer in Mathematical and Computer Engineering, Université Hassan II, FST Mohammedia, Morocco, 2018.