HERINIRINA OLIVIER RAKOTONARIVO

Software Engineer | AI Integration & Process Automation

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PROFESSIONAL SUMMARY

Software engineer specialising in AI integration and business process automation. Builds n8n workflows and AI agents that connect a company's tools (Gmail, Google Sheets, WhatsApp, Telegram, Notion) to large language models — Claude, Gemini, Mistral, self-hosted models through Ollama, or a custom-trained model — and embeds AI features such as document analysis and classification directly into business applications. Backed by a solid full-stack foundation (Java / Spring Boot, TypeScript with React and NestJS, Python, PostgreSQL) to take an automation from the first workflow to a secure, deployed application, including the move from scattered spreadsheets to one centralised system.

PROFESSIONAL EXPERIENCE

Lead Developer — Solumada

Antananarivo, Madagascar · On-site, full-time · Oct 2025 – Present

- Developed AI-assisted document processing features, integrating large language model APIs to analyse and classify business documents and reduce manual handling.
- Design the databases and build the architecture of the projects: internal business applications on a Java / Spring Boot backend with a React and TypeScript front end, backed by PostgreSQL.
- Built a company-wide reporting platform allowing managers to monitor activity and team performance across departments.
- Work directly with operational teams to map day-to-day workflows and identify the manual steps worth automating, then translate them into software specifications.

Software Developer — Optimum Solutions LTD

Remote · Contract, part-time · Oct 2025 – Present

- Single-handedly developed business applications and automations for a partner company of Solumada, covering HR and CRM domains.
- Integrated AI into the company's HR application.
- Migrated fragmented spreadsheet-based workflows into centralised web applications, improving data consistency and access control.
- Built a time-tracking solution giving project leaders visibility into working hours and project progress.

Founder & Freelance Developer — byhery.com

Remote · Part-time · Aug 2026 – Present

- Created byhery.com, a storefront selling in-house software products and development services.
- Built a hotel management application, live at hotel.byhery.com, and develop several other products in parallel.
- Build web applications, websites and automations for direct clients, from requirements to deployment (see Client projects).

Full-Stack Developer Intern — Circonscription Scolaire Atsimondrano

Tanjombato, Antananarivo, Madagascar · On-site · Aug 2025 – Oct 2025

- Independently designed and delivered SmartLeave, an HR and leave-management application for a public institution, replacing a paper-based process with a single digital platform (Spring Boot, PostgreSQL, React) — see Client projects.

CLIENT PROJECTS

SmartLeave — HR management software *(Public administration)*
Leave requests routed up the hierarchy for approval, administrative decisions, Excel import of employees, dashboards by department and region, and absence forecasts (weighted moving averages, linear regression).

nature-culture-madagascar.com — Tour operator website *(Freelance · tourism)*
Showcase site: trip search by keyword, region and length, tour catalogue with starting prices, destinations and travel journal.

Portfolio website for a data-entry professional *(Freelance · administrative services)*
Bilingual French / English site with its own visual identity and animated illustration, and a contact form to the client's inbox.

TECHNICAL SKILLS

AI & LLMs: LLM API integration (Claude, Gemini, Mistral), self-hosted models (Ollama), custom-trained models, AI agents, prompt engineering, document analysis and classification
Automation: n8n (webhooks, AI agent workflows); integrations with Gmail, Google Sheets, WhatsApp, Telegram, Notion, ERPNext REST API
Languages: Java, TypeScript, JavaScript, Python, SQL, C++
Backend: Spring Boot, Spring Data JPA, Spring Security, REST APIs, NestJS, Node.js
Frontend: React, Vite, HTML, CSS
Databases: PostgreSQL, Oracle, MySQL
DevOps & testing: Docker, Nginx, GitHub Actions, Cloudflare Workers, Linux, Vitest, Maven, Git, Postman
Standards: ISO/IEC 27001 (information security), ISO 9001 (quality management) — applied at Optimum Solutions

EDUCATION & CERTIFICATIONS

Bachelor's Degree in Computer Science – Full-Stack Development

IT University, Antananarivo, Madagascar · Sep 2022 – Jul 2025

– Object-oriented programming, software architecture, web application development, relational and NoSQL databases.

Advanced Secretarial Certificate

INSCAE DPA Training, Antananarivo, Madagascar · 2022

– Mastery of Office tools, especially Word and Excel, and business English.

Diplôme de Français Professionnel (DFP), Business French – Level B2

CCI Paris Île-de-France / Alliance Française de Madagascar · Sep 2021 – Jan 2022

Baccalaureate, Série C (Mathematics & Physics) – with honours (mention Assez bien)

Madagascar

PERSONAL PROJECTS

lead-assistant (n8n, Gemini, Cloudflare Workers KV, Notion API, Telegram, Docker) — n8n automation live behind iamhery.dev's contact form: each lead is qualified by Gemini (score, summary, questions to ask, reply draft), filed in a Notion CRM and pushed to Telegram. Queued in Workers KV, falls back across Gemini models when one is overloaded, tested end to end against a real n8n in CI.

iamhery.dev (React, Vite, Cloudflare Workers, Gemini) — This portfolio, with an AI assistant answering visitors' questions (Gemini behind a Cloudflare Worker, Workers AI fallback), SEO (a title, description and link card per page, structured data) and Google Analytics.

Deepglass (TypeScript, Canvas 2D, Vitest) — Browser roguelike on a pure, deterministic rules engine: seeded PRNG and replay make every run reproducible; CI deploys to GitHub Pages.

chess (Java, Swing, WebSocket) — Dependency-free chess engine (alpha-beta, PVS, null-move, LMR, PeSTO; +359 Elo measured), UCI support and online play.

prepwork (TypeScript, Node.js, CLI) — Scaffolding CLI that prepares a project for an AI coding agent: skeleton, architecture rules and agent specifications. Spring Boot, React, ASP.NET Core, FastAPI.

Ledger (C++20, CMake) — Embedded SQL engine with plain-text storage, constraints, joins and transactions.

huffman (Java, Servlet / JSP, D3.js) — Educational web app walking through Huffman coding step by step, from frequency table and tree to compression ratio.

BoulangeHery (Java 21, Servlet / JSP, PostgreSQL) — Bakery management: recipes with cost and margin, production, sales and receipts, rules enforced by PostgreSQL triggers.

LANGUAGES

Malagasy: Native · **French:** Full professional proficiency (DFP B2 certified) · **English:** Professional working proficiency