/// PRINCIPAL/STAFF ENGINEER

RAPHAËL LEMAITRE.

Backend engineer with 26 years on the JVM, including about ten years of functional Scala. I'm a Senior Backend Engineer at Nabla, building the real-time dictation backend in Kotlin. I have been a CTO and went back to coding by choice. I care about type safety, simple systems and teams that ship. On the side, I speak at Scala conferences and maintain open-source Scala libraries.

PARIS AREA, FR

LANGUAGES
FRENCH (NATIVE)
ENGLISH (C1)

LINKEDIN.COM/IN/RLEMAITRE
GITHUB.COM/RLEMAITRE
RLEMAITRE.COM

01 EXPERIENCE

11/2025 - NOW

SENIOR BACKEND ENGINEER

Nabla, clinical AI for health systems — Dictation team KOTLIN · POSTGRESQL · GOOGLE CLOUD · STT MODELS (WHISPER, NEMOTRON, SPEECHMATICS)

- Refactored the transcription pipeline to separate dictation from ambient transcription of recorded consultations, by usage type.
- Designed and built a layered, rule-based formatter with entity detection, in English and French, replacing the regex-based one.
- Built transcription A/B testing: each transcription runs on the production pipeline and a candidate one, and an LLM judge compares the results without exposing PHI.
- Wrote an internal API client so the ambient product (consultation transcription) uses the dictation API without depending on contracts that may change.
- Handled changes of where the dictated text lands without restarting the transcription pipeline.
- Anonymized dictation audio and stored transcripts.
- Built an AI-agent development workflow, from brainstorm and implementation plan to code, automated review by about 12 specialized review sub-agents (database, security, privacy, simplification, test coverage) and PR follow-up, plus a sub-agent that prepares human reviews; the workflow turns review comments that keep coming back into rules.
- Design and code reviews, coding and system design interviews.

03/2022 - 10/2025

SENIOR STAFF ENGINEER

Ledger SCALA · CATS EFFECT · POSTGRESQL · AWS (EC2, RDS, EKS)

- Architected ATLAS, Ledger's blockchain indexing platform for fast transaction and balance access.
- Built high-availability Scala backend services for Ledger's core products.
- Ran PostgreSQL at scale and a fleet of blockchain nodes.
- Analyzed and optimized cryptocurrency protocols to improve data indexing and query speeds.
- Benchmarked services to find and fix bottlenecks, with CI/CD and monitoring behind every deployment.

06/2014 - 03/2022

CTO, PREVIOUSLY LEAD DEVELOPER

Adventori, now part of
the COOL company GROOVY · GRAILS · JAVASCRIPT · POSTGRESQL · CASSANDRA · APACHE SPARK

- Served 20 billion ads a year on 15 servers at 99.5% availability, and ingested 400 GB of data a day on 20 servers.
- Managed the Tech Lab, a team of 9 developers, DevOps, data engineers and integrators.
- Co-designed the product roadmap with the CEO and PM, and aligned the technical roadmap with company objectives.
- Owned the tech budget and vendors with the CEO.
- Mentored the team through peer reviews, katas and coding dojos, and promoted craftsmanship and DevOps practices.
- Built an inclusive and selective hiring process for engineering and product.
- As Lead Developer, designed and built the ad server, data warehouse, reporting system and customer data integration service.
- Introduced Cassandra for high-volume data and Apache Spark for data ingestion and reporting.
- Set up advanced CI/CD workflows.

10/2010 - 06/2014

R&D SENIOR DEVELOPER

Systar, now part of Axway JAVA · FLEX (ACTIONSCRIPT)

— Designed and built a monitoring application on a custom distributed, bi-temporal NoSQL database.
— Scrum Master for a team of 4 developers in Paris and Lyon.

05/2007 - 08/2010

R&D ENGINEER

Xcalia, now part of Progress Software JAVA · SQL · XQUERY

— Developed a datastore-agnostic persistence and query engine over RDBMS and web services.
— Implemented compensation algorithms (joins, sort, union) and datastore-specific query generation.

07/2006 - 05/2007

SOFTWARE ARCHITECT

Capgemini JAVA · JBOSS · JASPERREPORTS · ORACLE

— Designed a portal and directory architecture for an AP-HP call for bids.
— Led the migration of the DGI's FICOBA application from Oracle Application Server to JBoss and from Oracle Reports to JasperReports.

01/2000 - 06/2006

TEAM LEADER

E-Deal, now part of Efficy JAVA · J2EE · J2ME · POSTGRESQL · ORACLE · DB2

— Managed a team of 4 R&D developers.
— Built the first J2EE version of the e-DEAL CRM, with its MVC and persistence frameworks, Sales Force and Admin modules.

02 SKILLS

LANGUAGES

Scala, Kotlin, Java, Groovy, SQL, TypeScript, JavaScript, HTML, CSS, Bash

AI

Claude Code, Cursor, MCP servers, Prompt engineering, Anthropic, OpenAI, Gemini,
STT (Whisper, Nemotron, Speechmatics, Soniox)

DATA

PostgreSQL, SQLite, Apache Cassandra, Apache Spark, Elasticsearch

OPS & TOOLS

AWS, Cloudflare, Kubernetes, Docker, Gatling, Git, GitHub, GitLab, CI/CD, Jenkins, Linux, OpenTelemetry, Grafana, Kibana, Datadog, IntelliJ IDEA, VS Code, Metals, Zed

03 PROJECTS

CREATOR — **claude-plugins** Claude Code plugins for developing with AI agents: a pre-PR review gate, PR follow-up, and repeated review comments turned into rules.

CREATOR — **Pillars** A Scala 3 library for building backend applications, with tools to build, test and document REST endpoints.

CREATOR — **Mason** An application generator for Pillars projects, to start a new one with minimal configuration.

CREATOR — **Risk Matrix** A small Vue app to rate risks by likelihood and impact on a grid, inspired by the NASA risk matrix.

CONTRIBUTOR — **Iron** A Scala 3 library of refined types that checks constraints at compile time and at runtime, so invalid data never gets in.

04 TALKS

2024 — **Hacking ADHD: Strategies for the Modern Developer**
DEVOXX FRANCE · SUNNYTECH

2024-2025 — **From Zero to Production Faster Than Your Average Meeting With Pillars**
FUNCTIONAL SCALA · SCALAR · SCALAIO

2023-2024 — **Armored Type Safety With Iron**
SCALA MATTERS · SCALAIO · SCALAR · SCALAMATSURI · FUNCTIONAL SCALA

2024 — **Fearless Coding: Scala 3 and Iron, the New Heroes of Reliability in Functional Programming**
SUNNYTECH

05 EDUCATION

1997 - 2001

MASTER IN ENGINEERING, COMPUTER SCIENCE ENSIIE