

Petru Arakiss

AI Engineering Lead and Head of Frontend Platform building retrieval infrastructure, agent runtimes, and guardrailed AI products.

Staff-level engineer with 20 years in software delivery. Current work centers on production AI systems that have to keep working after launch: document intelligence, retrieval infrastructure, agent runtimes, guardrails, eval loops, durable traces, cost and latency controls, permissions, and operator-facing product surfaces.

TARGET SCOPE

- Principal / Staff AI Engineer
- AI Platform Engineer
- Production AI Systems Architect
- AI Engineering Lead

WHAT I AM BUILDING NOW

Current production AI systems

The names are internal; the engineering shape is the signal. Each system has a real product surface, operational constraints, and failure modes that need to be visible.

BIFROST

DOCUMENT EVIDENCE

Document intelligence layer for messy inputs: ingestion quality gates, semantic chunking, multimodal retrieval, pgvector/HNSW search, caching, source quality, analytics, and honest no-answer behavior.

Python / FastAPI / Postgres / pgvector / Docling

ORVIAN

AGENT RUNTIME

AI workflow runtime with multi-tenant APIs, context assembly, durable memory, deterministic/cached/full-LLM tiers, run events, idempotency, queues, and human-review metadata.

TypeScript / Hono / Drizzle / Postgres / queues

Polaris

INTERNAL SEARCH

Internal AI assistant product that integrates BIFROST retrieval with MONARCH guardrails, cached safety-to-retrieval handoff, citations, streaming UX, analytics, and suggestion revalidation.

Next.js / Vercel AI SDK / BIFROST / MONARCH

20 yrs

software engineering across product, frontend, backend, and platform work

3 systems

current AI systems across document intelligence, agent runtimes, and internal assistants

12-20

engineers led in banking and fintech delivery contexts

RECENT OWNERSHIP

Atlassian

AI Engineering Lead / Head of Frontend Platform

Madrid / Sep 2021 - Present

- Lead production AI engineering across BIFROST, ORVIAN, and Polaris with high autonomy.
- Design retrieval infrastructure, agent runtime patterns, guardrails, context assembly, evals, and traceable execution paths.
- Own observability signals around latency, token and cost metadata, confidence, source quality, and human-review states.
- Translate complex backend and AI behavior into operator-facing interfaces that reduce guesswork.
- Set frontend platform standards, component architecture, review quality, and operational UI patterns.

BEFORE CURRENT AI SYSTEMS

Delivery depth

Sopra Steria – Lead Architect

Apr 2019 - Sep 2021

BBVA frontend scalability with Lit and Web Components; SOLUNION React rebuild; PagoFX / Santander backend leadership for a team of 12 engineers; Bankinter Angular rewrite with DDD and micro-frontends.

knowmad mood – Backend Lead Architect, El Corte Ingles

Jun 2018 - Mar 2019

Built Node.js and Express backend infrastructure with DDD-oriented architecture in a large retail environment.

Profile Software Services – Frontend Lead Architect, Decathlon Spain

Jun 2017 - Jun 2018

Built a modular Angular frontend from scratch and integrated it with Symfony APIs and legacy Twig surfaces.

Relevant Traffic / Dimensional Webs / Gran Via 80

Jan 2006 - Jun 2017

Full-stack delivery across PHP, Symfony, Laravel, Rails, AngularJS, Vue, WordPress, ecommerce, and internal tools.

PUBLIC ENGINEERING SIGNALS

Open source

gommage

Rust permission harness for AI coding agents: deterministic policy rules instead of prompt-only safety.

vestig

Runtime-agnostic structured logging with context propagation, observability primitives, and PII sanitization.

AI CERTIFICATION

IBM Machine Learning Professional Certificate, Mar 2026.

Credential ID P9AINTGOCM4P.

NLP, LLMs, machine learning, AI, reinforcement learning, Python, deep learning.

AI / LLMS

OpenAI, Anthropic, Vercel AI SDK, RAG, semantic and visual retrieval, vector databases, evals, guardrails, context engineering.

BACKEND

Python, FastAPI, TypeScript, Node.js, PostgreSQL, pgvector, Redis, Supabase, Drizzle ORM, DDD, CQRS.

FRONTEND

React, Next.js, Vue, Angular, Lit, Web Components, Tailwind, Radix, design systems.

INFRASTRUCTURE

Docker, Kubernetes, Terraform, Vercel, Cloudflare, AWS, GCP, OpenTelemetry.

NODE.JS CERTIFICATIONS

Linux Foundation: LFW211 Application Development; LFW212 Services Development.

EDUCATION

Computer and Network Systems, Instituto Salvador Allende.

Initiation in Computing, Eftimie Murgu University.

LANGUAGES

Spanish native. English professional working proficiency.