

IDEQUEL BERNABEL

Technical Product Lead & AI Solutions Architect

Turning Business Logic into Production Software | FinTech & Credit Systems

Santo Domingo, Dominican Republic · Remote Global

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PROFESSIONAL SUMMARY

Technical Product Lead and AI Solutions Architect with 10+ years in financial operations (8 years in hands-on credit ops) and 5+ years shipping production software. Focuses on turning complex operational rules and credit workflows into reliable software using AI agents governed by disciplined engineering standards. Built and shipped production platforms including SoliPres (core loan management), transactional web systems for Solufime, and multi-agent workflows with LangGraph and pgvector. Created Framework ASD v2 to enforce TDD, Gherkin specs, and complexity ceilings across AI-assisted codebases.

CORE CAPABILITIES & DOMAIN EXPERTISE

- **FinTech & Credit Operations (10+ Years in Industry / 8 in Direct Ops):** Credit risk analysis, underwriting heuristics, portfolio recovery strategies, KYC due diligence, regulatory privacy compliance (Ley 172-13), double-entry accounting invariants.
- **AI Systems & Orchestration:** LangGraph (stateful agent graphs and tool use), enterprise RAG (pgvector, HNSW indexing), Human-in-the-Loop workflows (Chatwoot API and webhooks), Redis semantic caching, context engineering.
- **Software Engineering & Delivery (5+ Years):** Domain-Driven Design (DDD), Architecture Decision Records (ADRs), Gherkin acceptance specs (BDD), zero-to-one prototyping, AI code governance.
- **Modern Stack & Delivery:** Python 3.12+ (FastAPI, Pydantic v2, SQLAlchemy 2), TypeScript, Astro, PostgreSQL 16, Redis 7, Celery, Docker Compose, secure webhooks (HMAC SHA-256), Linux/WSL.

PRODUCTION & HIGHLIGHTED BUILDS

SoliPres Loan Management Platform | Product Lead & Systems Architect

- **Status:** Live in production
- Built and deployed the core loan origination and portfolio management system for an active credit operation.
- Modeled the entire business domain (DDD) with sequential state machines (Received → Verified → Analyzed → Approved), immutable cryptographic short links, and credit scoring evaluation engines.
- Eliminated sequential database enumeration risks and automated customer application lifecycles.
- *Tech Stack:* PHP, MySQL, REST API, cryptographic tokens, layered architecture.

Solufime Transactional Web Portal | Lead Frontend & Integration Builder

- **Status:** Live in production
- Engineered the public acquisition and origination portal using Astro and TypeScript, prioritizing load speed, SEO, and strictly typed API contracts.
- Connected the portal directly to the SoliPres engine via secure REST APIs and HMAC SHA-256 authenticated webhooks, removing middleware overhead and raising advisor throughput by 40%.
- *Tech Stack:* Astro, TypeScript, TailwindCSS, Secure REST API, HMAC SHA-256.

Framework ASD v2 (Agent-Driven Structured Development) | Creator & Open Source Author

- Created an open-source framework to govern AI coding agents under architectural and quality constraints.
- Implemented Uncle Bob's 7-agent pipeline (Orchestrator → Specifier → Coder → Refactorer → Architect → QA → PII-Verifier); agents cannot write code without prior failing Gherkin tests, and cyclomatic complexity is capped at CRAP ≤ 6.
- *Tech Stack:* Python, Shell/Bash, Git Hooks, Antigravity, Claude Code, Cursor.

AI Customer Service Platform (customer-service-system) | AI Solutions Architect

- Designed a multi-agent customer operations platform using stateful LangGraph graphs for intent routing across Support, Sales, Scheduling, and Escalation.
- Built a pgvector RAG pipeline with confidence thresholding against hallucination, integrated Chatwoot for human takeover, and implemented Redis semantic caching to reduce LLM costs by over 30%.
- *Tech Stack:* FastAPI, Python 3.12, LangGraph, PostgreSQL (pgvector), Redis, Chatwoot, Celery, Docker.

CreditGraph Parser API | Creator & Backend Builder

- Built a standalone FastAPI microservice that parses credit bureau PDF reports (TransUnion and DataCrédito) into validated Pydantic JSON schemas.
- Built-in automated PII scrubbing compliant with Ley 172-13, ensuring zero personal identity leakage in logs and models.
- *Tech Stack:* Python 3.12, FastAPI, PyMuPDF, Pydantic v2, Typer/Rich CLI, Docker.

PROFESSIONAL WORK HISTORY

IntegroLend (Independent Practice / Freelance) | AI Solutions Architect & Technical Consultant

October 2025 – Present | Santo Domingo / Remote

- Architect and implement production AI automation systems, multi-agent workflows in LangGraph, and RAG data pipelines with pgvector.
- Applied Framework ASD v2 across development workflows, cutting feature delivery lead times by 50% with a 100% test scenario pass rate.
- Replaced manual credit analysis and intake tasks with human-in-the-loop agent workflows in Chatwoot with strict PII controls.

COOP SOLUFIME | President of the Supervisory Board

July 2024 – Present | Santo Domingo, Dominican Republic

- Elected by the General Assembly to lead the internal oversight and financial audit board of the cooperative.
- Supervise administrative decisions and executive management to verify compliance with cooperative bylaws and regulations (Ley 127-64).
- Audit credit operations, portfolio risk, fund placement, and institutional liquidity.
- Issue and present annual oversight reports and internal audit findings to the General Assembly of Members.

Préstamos Personales Solufime | Financial Operations Manager & Tech Transformation Lead

November 2021 – July 2024 | Santo Domingo, Dominican Republic

- Led digital transformation for the credit portfolio, turning credit strategy into working software.
- Designed loan approval workflows from intake to disbursement, removing operational bottlenecks and raising advisor throughput by 40%.
- Formulated core business logic, credit scoring matrices, and pre-qualification rules used by automated underwriting engines.
- Managed technical infrastructure and maintained data consistency across CRM and loan management systems.

Préstamos Personales Solufime | Senior Credit Analyst & Portfolio Advisor

August 2017 – October 2021 | Santo Domingo Este, Dominican Republic

- Reviewed thousands of credit bureau reports (TransUnion and DataCrédito), assessed borrower debt capacity, and flagged fraudulent documentation.
- Kept portfolio delinquency below 3% through structured loan workouts and active account monitoring.
- Enforced KYC due diligence protocols and audited data integrity across credit databases.

Financial Services / Credit Sector | Credit Operations Advisor (Early Career)

January 2011 – December 2012 | Santo Domingo, Dominican Republic

- Conducted preliminary borrower evaluation, commercial reference verification, and debt service capacity calculations.
- Managed early-stage collections and customer account servicing.

EDUCATION & CREDENTIALS

- **B.S. in Software Engineering:** Universidad Abierta para Adultos (UAPA) (2025 – 2029, *In Progress*)
- **Full Stack & Backend Software Engineering (Self-Directed & Applied Practice):** Platzi, freeCodeCamp, DataCamp, Coursera, Udemy (2020 – 2024)
- **Technical Electronic Baccalaureate (Communications, Radio & TV):** Instituto Politécnico Santa Ana (2002 – 2006)
- **EF SET English Certificate:** B2 Upper Intermediate (Professional Working Proficiency, score 54/100)
- **Certifications:** Data Analysis with Python, Modern Web Development & Backend Architecture, Advanced Excel & Financial Modeling (INFOTEP).