Benoit Hirbec

Staff Software Engineer

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Full-stack engineer and tech lead with 18+ years building and scaling platforms across fintech and large-scale infrastructure — at Block (Square Loans), Twitter, and most recently as a solo founder building agentic AI. Designs and ships production agent systems: LangGraph orchestration, custom tools and MCP servers, retrieval over vector stores and knowledge graphs, and structured outputs from OpenAI and Anthropic APIs.

WORK EXPERIENCE

Squad33 LLC

July 2026 – Present

`llm` `openai` `anthropic` `tool call` `python` `Go Lang` `langgraph` `react` `typescript` `vite` `aws` `dynamodb` `s3` `Stripe`

Solopreneur

InterviewSoon — Built a SaaS platform for AI resume improvement and spoken mock interviews with personalized feedback; launched on Product Hunt.

Deepheard — Built a SaaS platform for customer feedback through forms, text, and AI voice conversations, producing actionable written feedback.

MilliSketch — Built a browser-based CAD SaaS platform for 3D modeling with an AI agent and real-time MCP editing.

Maomi.ai — Built a game-based learning platform for kids with interactive 3D worlds and Anthropic-generated lessons and quizzes.

Block / Square

May 2019 – March 2026
Remote

`ruby` `Go Lang` `graphql` `aws` `dynamodb` `s3` `react` `typescript` `vite` `ocr`

Software Engineer / Tech Lead, Lending Platform

Tech Lead across 3 teams (~15 engineers) on the Lending Platform, which powers Square Loans — ~$4B+/year in loan originations for Square sellers; set technical direction, drove cross-team design reviews, and mentored engineers.

Paycheck Protection Program (PPP) — Enabled Block to disburse ~$1B across 120K PPP loans during COVID — a top-company priority for keeping Square sellers solvent — by automating the review of loan applications: OCR extracted key business data (employee counts, revenue) from tax forms (e.g., 1099s), allowing operations to scale under a tight timeline.

Manual Review Flow — Redesigned the manual-review system (for applications failing automated KYB/KYC, risk, and payroll checks) into a server-driven flow where the backend dynamically specifies the fields Ops reviews, cutting new review-flow implementation from weeks to days. Adopted by several teams (including outside Lending) and reused to absorb thousands of SBA audit requests received within days.

Monolith Decomposition (CoViz) — Drove decomposition of a large, tightly-coupled Ruby monolith (unclear ownership, slow builds) by building CoViz, a build-time tool that maps the codebase's class-dependency graph behind a UI. Teams used it to reorganize ~10–12 domains; extended it to 4–5 teams outside Lending that shared the codebase.

Twitter

Oct 2016 – May 2019
San Francisco

`python` `aws` `dns` `route53` `smtp` `mysql`

Software Engineer, Infrastructure Management Systems (IMS)

DNS Failover — Built an automated DNS failover system across multiple providers (Dyn, Route 53), eliminating the single point of failure that took Twitter offline during the October 2016 Dyn DDoS attack.

Load-Balancer Configuration — Redesigned the load-balancer configuration system from a slow, git-repo-based process into a self-service platform with validation and real-time changes; built with 2 infrastructure teams and adopted by product teams to deploy their own services.

IP Address Management (IPAM) — Re-architected the IPAM service — which allocates every IP address across Twitter's two datacenters — from an outage-prone single instance into a resilient, highly available service.

Fuze

April 2015 – Oct 2016
Palo Alto

`Go Lang` `python` `aws` `docker` `cassandra` `redshift` `mysql` `kafka`

Software Engineer

Monolith Decomposition — Helped migrate a coupled, hard-to-scale Python monolith to a service-oriented architecture (Go Lang, AWS, Docker), building the telemetry service that measured connection and VoIP call quality.

Telemetry Analytics — Re-platformed telemetry analytics from Cassandra to Redshift to consolidate data that was hard to cross-query and aggregate, while relieving load on Cassandra (shared with other systems) — enabling custom call-quality reports the team used to improve the service.

Garden

June 2011 – Feb 2015
Paris

`Go Lang` `python` `redis` `mysql` `postgresql` `nginx`

Software Engineer & Consultant

Vocation City: An applicant tracking system (ATS) for HR teams, designed from the ground up with another engineer (Go Lang, Redis, MySQL, NGINX, HTML, CSS, and Google Cloud).

MeilleursAgents: built a real-estate price estimation engine using the Repeated Sales Index (RSI) method and French Notary data to estimate prices for every property in Paris; the company was later acquired for €200M.

CoSpirit: built a web application for French retail chains.

Natixis (Bank)

Sept 2006 – April 2007
Paris

`python` `numpy` `vba`

Financial Structurer

Developed risk management tools with Python, NumPy, Excel, and VBA.

EDUCATION

Université Paris Dauphine

2006
Paris

Master's Degree — Research Finance

Master 104 is a top-ranked Research Finance Program in France. It provides a thorough knowledge of Research Finance by addressing many aspects of the discipline: Financial Decisions, Capital Markets, Asset Pricing and Derivatives, Portfolio Management, Mathematical Tools, Financial Macroeconomics, etc...

INTERESTS

Bike, Running, Swimming, Cryptocurrencies, Fishing.