

LEVELBROOK CONSULTING

Patrick Donahue — Principal Engineer · Ruby on Rails Practice

RUBY ON RAILS · GRAPHQL & REST APIS · POSTGRESQL
PERFORMANCE & SCALING · AWS · DATA PIPELINES · C2C THROUGH
LEVELBROOK LLC

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consulting.levelbrook.com/writing

SUMMARY

Principal-led **Ruby on Rails engineering practice** on the West Coast, available on contract. The practice's principal brings **6+ years** of hands-on, senior ownership building and scaling a production, multi-tenant B2B SaaS on Rails — with real depth in **GraphQL and REST API design, PostgreSQL performance and scaling, AWS infrastructure and cost work, and high-volume data pipelines**. Long senior tenure through a multi-year growth phase: **auditing and killing N+1 query storms, denormalizing hot paths, and adding targeted indexes and read replicas to restore p95 latency under load**, while shipping a GraphQL API that powers web, mobile, and partner integrations. Comfortable refactoring large, long-lived codebases and integrating with stubborn legacy and enterprise systems. Levelbrook pairs that principal-level depth with a **vett**ed **senior-engineer network** for larger or parallel workstreams. Comfortable embedding with an existing team or owning a workstream end-to-end. Available **C2C / 1099 / contract-to-hire** through Levelbrook Consulting LLC for senior remote Rails engagements.

CORE TECHNICAL SKILLS

RUBY ON RAILS:	Rails 5–7 in production (Rails 8 in recent project work), ActiveRecord, ActiveJob / Delayed Job, service objects, presenters, ViewComponent — idiomatic, well-tested, maintainable Rails on large codebases
APIS & SERVICE DESIGN:	GraphQL (schema design, batched resolvers, versioned schemas), RESTful APIs , service-oriented design, background-job pipelines, queue-based workflows, third-party / partner / ERP integrations
DATA & POSTGRESQL:	PostgreSQL — query & index optimization (compound & trigram indexes), N+1 auditing & remediation , denormalization tradeoffs, read replicas, partitioning; Redis; ETL-style import pipelines and large-batch processing
CLOUD & INFRA:	AWS — S3 (Glacier Deep Archive, lifecycle & Intelligent-Tiering), RDS, SES, IAM, CloudWatch, Lambda, SQS; Docker, CI/CD, Linux CLI, observability & logging; Cloudflare Pages / Workers / R2
FRONTEND:	React , Redux, TypeScript / JavaScript (ES6+); Turbolinks (legacy); Hotwire / Turbo & Tailwind CSS in recent project work, where it serves the product

AI & TOOLING:	Authored the ai_stream gem (Ruby port of the Vercel AI SDK data-stream protocol); AI-assisted code review in the PR workflow; authored team-level Rails engineering standards
SECURITY & AUTHN/Z:	Devise, OAuth2 / JWT / SSO, role-based access control, least-privilege IAM, audit logging, secrets management, secure API design, encryption at rest & in transit
PROCESS:	Async / fully remote collaboration, Git, code review, TDD, Agile / Scrum / Kanban, decision docs & technical writing

PROFESSIONAL EXPERIENCE

Senior Ruby on Rails Engineer

Aug 2019 – Present

Multi-tenant B2B SaaS Platform | Remote

RAILS BACKEND, GRAPHQL & PLATFORM

- Senior engineer on a small backend team supporting a **multi-year growth phase** of a multi-tenant **Ruby on Rails** SaaS; hands-on across feature delivery, architecture, and on-call reliability.
- Designed and shipped a **GraphQL API** (schema design, batched resolvers) alongside REST endpoints powering web, mobile, and partner integrations — including a **full GraphQL redesign** paired with a customer-portal rebuild.
- Migrated a generated Rails admin (mount Admin::Engine) to a **React + GraphQL** admin, retiring a long-standing performance and security liability.
- Refactored a legacy **“god object”** into versioned, diffable, rollback-able units — a foundational change benefiting multiple teams.

POSTGRESQL, PERFORMANCE & SCALABILITY

- Audited a decade of Rails code for **N+1 query violations** (Prosopite tooling), fixing hundreds of read- and write-path N+1s and adding regression specs so they stay fixed.
- **Denormalized hot aggregates** (per-record cost and state rollups) and added **compound and trigram indexes** to make heavy list and substring-search pages fast at scale.
- Diagnosed a **noisy-neighbor** problem affecting enterprise tenants; moved read traffic to **PostgreSQL read replicas** and tuned indexes, restoring p95 latency under load.
- Identified a large portion of a production database as stale records degrading query performance; led the cleanup that improved scalability across all tiers.

AWS, DATA PIPELINES & COST

- Architected a **cold-storage archival tier** on S3 for a petabyte-scale media set — **Glacier Deep Archive + Intelligent-Tiering**, lifecycle rules, retrieval workflows, and an access-control review — cutting the S3 line item **~60% (~\$444K/year)** with no user-visible regression.
- Built **import pipelines** ingesting and normalizing data from third-party enterprise / RMS partners at **large daily volume** — CSV and field-mapping flows plus a workflow export/import system — a guerrilla integration path that let the business onboard customers locked into entrenched legacy systems.
- Built a production integration with an **ERP that only communicates by email**, using AWS SES, a queue, and indexed lookups.
- Moved heavy notification / restore processing to **background jobs with indexed media lookups**, removing a request-path bottleneck.

SECURE HANDLING OF SENSITIVE DATA & AUTHN/Z

- Worked daily with **sensitive customer business data** (contracts, PII, signed-document artifacts) — with care across logging, retention, and access boundaries.
- Designed a **guest-user system** (JWT) and a dedicated **support-user role** to replace broad super-admin access; scoped records by **role-based access control**; fixed real vulnerabilities (removed a SQL injection, closed auth-token exposure in background jobs, prevented cascading permadeletes).
- Implemented **Devisе-based authentication**, scoped API tokens, and audit-logged actions; comfortable reasoning about **least-privilege IAM** and secrets management; performed security-focused code reviews (injection, authorization, data-leak vectors).

Principal Engineer & Founder

2024 – Present

Levelbrook Consulting LLC | Remote · Pacific Time

- Founded and run a **principal-led Ruby on Rails engineering practice** serving startups and growth-stage teams on a contract basis, backed by a vetted senior-engineer network for larger or parallel workstreams.
- Engagements span **Rails feature delivery, GraphQL & REST API design, PostgreSQL performance work, AWS infrastructure, and legacy-system integrations** — embedding with client teams or owning a workstream end-to-end.
- Authored open-source gems — including **ai_stream** (a Ruby implementation of the Vercel AI SDK data-stream protocol) — and a live Hotwire/Turbo reference app; publish detailed engineering case studies at consulting.levelbrook.com/writing (selected below).

Software Engineering Consultant

Jan 2017 – Aug 2019

Independent Contractor | Remote

- Delivered full-stack **Ruby on Rails** contract work for SaaS startups; upgraded mission-critical applications across major Rails versions for performance, security, and maintainability.
- Led **cloud migrations** for client infrastructure, improving scalability and reducing hosting cost.
- Built RESTful APIs and React front ends for early-stage MVPs.
- Operated independently with founders and stakeholders to clarify ambiguous requirements and ship.

WRITING — ENGINEERING CASE STUDIES

Long-form writing on real production engineering work — Rails & PostgreSQL at scale, AWS cost and reliability work, integrations with legacy systems, and AI tooling. Full index at consulting.levelbrook.com/writing.

› The Page That Counted 800 Million Rows

When aggressive denormalization is the right answer.

› The Hidden Cost of mount Admin::Engine

Migrating a generated Rails admin to React + GraphQL.

› The Question the AWS Console Will Not Answer

RDS IOPS pattern detection with Ruby and a spreadsheet.

› 319 N+1s, 5,940ms Wasted

Auditing a decade of Rails code in one afternoon.

› A Petabyte, a Bill, and a Tiering Decision

Cutting an S3 line item ~60% without a user-visible regression.

› S3 Access Log Archaeology

A year of access logs → a defensible archival policy.

› **One Commit, Six Lessons**

A Salesforce sync, a read follower, and a credentials-posture rebuild.

› **The ERP That Will Only Talk to You by Email**

A production integration built on AWS SES, a queue, and indexes.

› **The Support Tool That Edits Five Tables**

Atomically

A reparent-user workflow with a dry-run diff preview.

ENGAGEMENT & CONTRACTING

Levelbrook Consulting LLC contracts **C2C** and is set up for clean enterprise onboarding: **MSA, SOW, and mutual NDA** ready to execute; **Certificate of Insurance** on file (General Liability and Professional Liability, \$1M / \$1M); comfortable with **VMS / vendor-portal onboarding**. Engagements also available **1099 / contract-to-hire**.

ADDITIONAL

- **Principal-led practice with a vetted senior-engineer network** — scale a single workstream to a small pod when the work calls for it.
- **5+ years fully remote**; strong async written communication, decision docs, and clean Git practices.
- Pacific Time based; **available 30–40 hrs/week** with flexible overlap; willing to travel for kickoffs (1–3 days/quarter).
- US-based, no sponsorship required. **Available C2C / 1099 / contract-to-hire** through Levelbrook Consulting LLC. References and detailed work history available on request post-screen.