

Sveinbjörn Geirsson

Senior software engineer

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I build the systems behind the product, with an eye for reliability and how the next engineer will work with them. My background combines payment processing and pension systems with multi-tenant SaaS, cloud infrastructure, and search.

Experience

Aug 2025–present

Massif Network

Senior Developer

Location and media workspace for film production. Worked closely with the CTO/founder, driving backend and platform architecture.

- Built PostgreSQL/PGMQ processing through a broker Worker using Hyperdrive, service bindings, and Durable Objects. Claim fencing rejects stale queue acknowledgments and finalization; bounded execution, retries, and dead-letter handling make failures visible.
- Reworked test configuration and CI orchestration: a documented warm-cache comparison fell from **9m08s to 3m24s**, with explicit test-environment separation.
- Moved media storage from Supabase Storage to Cloudflare R2, with authenticated delivery and uploads. Unified web, admin, and Workers in a pnpm/Turborepo monorepo and built local integration tests connecting Wrangler Workers to Supabase.
- Hardened tenant authorization, sharing permissions, and upload validation; migrated Worker authentication to Supabase JWKS.
- Built tenant-scoped hybrid search with Meilisearch, Voyage AI embeddings, and index repair. Built an evaluation harness and graded golden set of 87 queries; compared per-photo vectors with one combined text-and-image vector per location, which performed better overall in this comparison; also tested keyword/vector weighting.
- A separate 670-case A/B of Overture Maps enrichment detected no relevance gain ($p = 0.75$); recorded a recommendation against paid re-embedding.
- Set up Grafana Cloud monitoring across the application, database, search, and Workers, connecting metrics and logs to dashboards and alerts.

Cloudflare Workers / R2 / Wrangler · TypeScript · SvelteKit · PostgreSQL / Supabase · Meilisearch

2022–2025

Reiknistofa Lífeyrissjóða

Software Engineer

- Developed and maintained IBM Informix pension systems for payments, collections and contribution statements; mortgages, bonds and securities; and disability, retirement and child-pension applications and other accrued benefits.
- Integrated RL's core systems with the Central Bank of Iceland's reporting system in 2023–2024, including the mortgage-obligation register reporting each fund's loan balances and arrears. Used personal access to the submission system to carry out the reporting.
- Set up and operated an X-Road security server for queries from Tryggingastofnun and Sjúkratryggingar Íslands. Responses stated whether a member had applied for pension-fund rights and which rights the application concerned.

IBM Informix · SQL · X-Road

2013–2022

Korta / Rapyd

Software Developer

Joined Korta from university as its second developer; later helped newer developers navigate its payment systems.

- Developed settlement and payment-distribution logic for fees, rolling reserves, refunds, payment splitting and withholding, and settlement-frequency rules across domestic and SEPA/SWIFT transfers.
- Mapped Visa/Mastercard reconciliation and chargeback data to accounting codes across multiple currencies and cost/value dates, including when an accounting day could be closed.
- Added logging and traceability to financial workflows and automated software releases.
- Made core financial data available to frontend teams through IBM DB2 data services, without requiring them to know the underlying systems.

Java · Scala · IBM DB2 · OAuth 2.0

Selected projects

Independent work on developer tools, image processing, and local inference.

Agent tooling & shared memory

Built a coding-agent toolchain with Hindsight memory shared across two machines and claude-history, a Rust CLI for searching coding conversations.

github.com/Raudbjorn/claude-history

pdq-wasm

Built and published pdq-wasm to npm, providing WebAssembly (WASM) and TypeScript bindings for Meta's PDQ perceptual image hashing in browser and Node.js applications.

www.npmjs.com/package/pdq-wasm · github.com/Raudbjorn/pdq-wasm

Fission & Intel Arc inference work

Built a local inference runtime integration with supervised model serving, runtime identity checks, and cancellation. Maintained an Intel Arc-focused llama.cpp fork with SYCL performance work and reproducible correctness and benchmark checks. One recorded benchmark (PR #35) increased generation from 6.95 to 17.10 tokens/s at 16k context (Mistral-7B Q4_K_M, f16 KV cache, Arc A770).

github.com/Raudbjorn/ggml-llama.cpp

Technical skills

Backend & data	Multi-tenant SaaS, TypeScript, PostgreSQL, Supabase, SQL / RLS, PGMQ, OAuth 2.0, authentication and authorization.
Cloud & delivery	Cloudflare Workers, R2, Wrangler, Hyperdrive, Durable Objects, KV; Docker, CI/CD, Vitest, Playwright, pgTAP, Grafana Cloud; staging/production configuration.
Search & AI	Hybrid and vector search (Meilisearch), Voyage AI text/image embeddings, retrieval-augmented generation (RAG), retrieval evaluation, llama.cpp, local inference.
Languages & systems	Rust, Go, Python, C++, SYCL, Java, Scala; SvelteKit / Svelte; IBM DB2 and IBM Informix in financial systems.
Spoken languages	Icelandic and English.

Education & recognition

2010–2013	University of Iceland BSc, Computer Science. Teaching assistant in undergraduate computer science courses.
2016	Voting-system security disclosure Identified and reported a CSRF vulnerability that could change a logged-in user's vote. The maintainer acknowledged the report and fixed the affected election methods.
2021	Rapyd internal hackathon winner Part of the winning team building a working WhatsApp wallet proof of concept using the Rapyd Wallet and WhatsApp Business APIs.

Accepted open-source contributions

Contributed bounded shell-output capture to Oh My Pi and a public terminal-buffer renderer to Crepuscularity; both accepted upstream.

github.com/can1357/oh-my-pi/pull/789 · github.com/tschk/crepuscularity/pull/299

References

Tómas Árni Jónsson

Software Specialist · Deloitte

Worked together on RL's Central Bank reporting integration, 2023–2024.

Contact information available on request.

Práinn Guðbjörnsson

Chief Risk Officer · Festa Pension Fund

Worked together on Korta's early systems as two of its first developers, 2013–2017.