

Martins Erts

SENIOR SOFTWARE ENGINEER · POLYGLOT · DISTRIBUTED SYSTEMS & RELIABILITY · SHIPS AND RUNS COMPLETE PRODUCTS

📍 Riga, Latvia (EU) · Remote

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Summary

Available now · Fully remote · Contract or permanent · live product: vectree.io

Senior software engineer with **20+ years** shipping robust, scalable systems across core banking, telecom, 24/7 fail-safe gaming platforms, consumer IoT/video, and high-throughput data infrastructure. **Polyglot**, with production depth in **Rust and TypeScript** and years of production **functional programming**.

Owens systems **end-to-end**: architecture, back end, data, billing, auth, frontend, and the infrastructure it runs on. Builds the cluster, pipelines and monitoring for his own products from bare metal, and still runs them. Also a hands-on AI builder who has independently shipped three production LLM products, so the modern AI stack is a core, shipped strength.

Skills

Languages	TypeScript/Node, Rust, Elixir, Scala, Go, F#, OCaml, C#/.NET, Python, SQL (PL/SQL, Postgres, MS SQL)
Distributed systems	event-driven microservices, NATS JetStream, Kafka, RabbitMQ, event sourcing, WebSockets / realtime, high-throughput pipelines
Frontend	React, React Flow, TanStack Query, Vue 3, PrimeVue / Tailwind, Phoenix LiveView, TypeScript SPAs
Infra / cloud	Kubernetes / k3s, Docker, CI/CD, GitOps (Flux, Kustomize, Helm), AWS, Prometheus / Grafana / PromEx, Redis, S3 / MinIO, Ory Kratos / Oathkeeper, Stripe / Paddle billing, Linux/BSD
AI / ML	RAG, LLM orchestration (Vertex AI / Gemini), vector DBs, Qdrant, pgvector (HNSW), embeddings, agentic tool systems, Document AI / Vision, PII redaction, local ML (Bumblebee/Nx), PyTorch (coursework, not production ML)
Practices	full SDLC architecture→deployment, multi-tenancy (Postgres RLS), automated + e2e testing, code review

Experience

Senior Software Engineer	Remote
TARI LABS	Jan 2023 – Jun 2026
- Senior software engineer at a high-throughput data-infrastructure company. Personally reviewed 600+ PRs across 36 repositories, and authored 900+. Co-built a high-throughput data-aggregation platform indexing data from multiple external networks (Ethereum, Polygon, Aptos and others) with 100+ specialized workers (indexing, rollback/reorg handling, metadata, pricing, market data) on Kubernetes/Kustomize, backed by TimescaleDB databases, Redis Streams, Kafka, and RabbitMQ. Built a market-bid ingestion pipeline sustaining peak ~500 req/s from external providers, migrating the source from third-party WebSockets to direct Kafka for reliability, into a shared PostgreSQL → Elasticsearch search pipeline. Built a production Rust WASM + C-FFI SDK for a distributed protocol (cross-language transaction building), then layered Go (C-FFI) and Python (WASM) SDKs on top; co-built a multi-account CLI (scanning, fee estimation, reorg handling). Built a visual transaction-flow builder as a VS Code extension in React Flow: connect nodes with arrows to compose and execute Layer-2 transactions. Open source: github.com/tari-project/tari-vscode-nocode-extension. - Contributed to a real-time WebSocket event-streaming service and a shared Kubernetes IaC platform with OpenTelemetry/Prometheus observability; took over and extended a correctness-critical asset-transfer service on AWS Lambda (configurable daily/percentage limits, admin controls). - Stack: TypeScript/Node, React, Rust, Kafka, RabbitMQ, Redis, Kubernetes, Prometheus, AWS Lambda.	

Full-Stack Developer

Riga, Latvia

UBIQUITI INC.

2021 – 2022

- Developed **UniFi Protect**, Ubiquiti's large-scale consumer surveillance-camera and video-management system. Stack: Node.js, TypeScript, **Rust** (tokio, tonic, prost, serde, bindgen).

Scala Developer

Riga, Latvia

EVOLUTION

2020 – 2021

- Built **clustered, fail-safe, event-sourced RNG and live-streamed games running 24/7**: high-reliability distributed systems with production functional programming. Stack: **Scala** (akka, cats-effect, fs2, http4s), Kafka, Kubernetes, Prometheus.

Software Developer

Riga, Latvia

ZZ DATS

2007 – 2019

- 12-year tenure delivering enterprise software across a broad stack. Stack: **.NET Core, C#, F#, ASP.NET MVC**, Oracle PL/SQL, PostgreSQL, RabbitMQ, Elasticsearch, Docker.

Earlier career

Riga, Latvia

NORDEA · DENTEL / LMT · LATNET

1995 – 2006

- **Nordea**: core banking (Temenos Globus, MS SQL). **Dentel / LMT**: telecom (.NET, PHP/Perl). **Latnet**: Unix system administration (Solaris/NetBSD/FreeBSD).

Independent Products

Self-hosted end to end, from bare metal up: k3s, CI/CD into test and production environments, monitoring and backups. No platform team, no managed PaaS. Vectree still runs on it.

Vectree

vectree.io

LIVE AI VISUAL-KNOWLEDGE-GRAPH APP

Elixir / Phoenix LiveView

- **Live in production, unsupervised, 4+ months with zero maintenance.** Turns a query into an interactive, zoomable concept map, then a collaborative knowledge graph with semantic search and voting.
- Gemini orchestration + local ML (Bumblebee/Nx embeddings + moderation, no external call on the hot path), **pgvector HNSW** semantic search, Oban multi-queue workers. ~267 modules · PostgreSQL 17 · PromEx/Prometheus · multi-stage Docker.

AudioText Live

github.com/martinserts/textifylive

CALL-INTELLIGENCE SAAS

Go

- **Real-time media ingest + async AI pipeline**: live PCM from telco media streams over WebSockets into NATS; recorded, then turned into searchable, summarized intelligence.
- **~16 single-purpose Go services**, event-driven via **NATS JetStream**: Soniox async transcription, Google Gemini structured-JSON summaries, Presidio PII redaction, Qdrant semantic search. PostgreSQL · Redis · MinIO/S3 · Ory auth · Paddle atomic billing ledger · Vue 3 · **Kubernetes**.

A third product is in private development: an AI compliance assistant for a regulated market. An LLM agent with 130+ tools answers questions from a document corpus and cites its sources, and reads data out of scanned documents. Built in OCaml, Elixir and Vue. Details on request.