

Yosif Soliman | Rust / Backend Systems Engineer

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Languages: Arabic (Native), English (Fluent)

Summary

Systems engineer who designs, builds, and distributes production Rust software: a published Linux dictation tool, an end-to-end encrypted remote-control daemon, and a full-stack platform in a single Rust binary. Comfortable from async runtimes and OS-level integration (uinput, Wayland/X11, systemd) up through web services, packaging, and multi-platform release engineering.

Experience

Bond

Remote, USA

Software Engineer

Dec 2025 – Present

- Built and own the production **observability stack** (Prometheus, Grafana, exporters, alerting) and an **agent-driven E2E + evaluation framework** that drives the live product via **Playwright**, auto-root-causing failures against **Langfuse** traces.
- Built the **Bond CLI** – a programmatic, agent-first interface to the platform, distributed as **cross-platform binaries** – with an agent **skill layer** that lets an AI agent run an end-to-end campaign (lead sourcing, an enrichment **column tree**, a 5-row test gate, fan-out, and export). Also shipped Bond-app CRM email/calendar sync (Google/Microsoft OAuth).

AI Intern

Sep 2025 – Nov 2025

- Migrated the Python/**FastAPI** backend to queue-based **Supabase edge functions** (Deno/TypeScript), building integration-tested services with queuing and rate limiting.

OpenQQuantify

Remote

AI Software Engineering Intern

Jan 2025 – Jun 2025

- Built a **RISC-V** toolchain pipeline that turns natural language into C, compiles to assembly, and executes on **QEMU**, plus multi-agent code-to-assembly compilation across architectures.

EJADA Systems

Cairo, Egypt

Cloud Engineering Intern

Jul 2024 – Sep 2024

- Cloud engineering on **GCP**; completed training in cloud architecture, **DevOps**, and **OWASP Top 10** security.

Technical Skills

Languages: Rust, C/C++, Python, TypeScript, SQL

Systems: Async (Tokio), uinput/evdev, Wayland/X11, systemd, cryptography (X25519, AES-GCM), CUDA, quantization

Backend & Web: Axum, Leptos, SQLx, FastAPI, REST, WebSockets, SSE

Infra & DevOps: Docker, GitHub Actions (CI/CD), crates.io, AUR, Homebrew, Nix, Prometheus, Grafana, AWS, GCP

Data: PostgreSQL, Redis, OpenSearch

Highlighted Projects

- **whisrs – Voice-to-Text Dictation for Linux** [GitHub] (50+ GitHub stars)
 - Built an async **Rust** daemon with OS-level, **layout-aware key injection** (uinput/evdev), cross-WM window tracking (x11rb/swayipc), a Wayland OSD overlay, and multi-backend ASR (Groq, OpenAI, Deepgram, local whisper.cpp). Published to **crates.io**, AUR, and Nix.
- **ferlay – Remote Control for Claude Code** [GitHub]
 - Built a Rust workspace (daemon + relay) with **end-to-end encryption** (X25519 + AES-256-GCM) where the relay forwards only ciphertext, plus cross-platform packaging (curl/AUR/Homebrew, Docker on GHCR).
- **Locked-In – AI Calendar Platform** [Demo]
 - Architected a **single-binary** full-stack Rust app (Axum + Leptos WASM + SQLx) with **SSE streaming**, per-IP/per-user rate limiting, a circuit breaker, and **OpenTelemetry** observability.
- **kanue – KAN-Based Chess Evaluation Research** [GitHub]
 - Integrated **Kolmogorov-Arnold Networks** into a Rust/**CUDA** NNUE trainer via custom fused B-spline kernels and **int8 quantized** inference, validating a **+169–226 Elo** gain over the baseline through **SPRT** testing.

Open Source Contributions

CodeWhale – Terminal AI Coding Agent (36k+ GitHub stars) [GitHub]: Added an async **Tokio** wakeup channel that resumes the parent agent loop the moment parallel sub-agents finish, removing manual nudges.

keybr-tui – published Rust TUI typing trainer on crates.io with multi-platform release binaries and CI.