

00 PROFILE

Applied AI systems builder who turns ambiguous operating problems into bounded workflows, testable decisions, and reviewable technical artifacts. Builds across product framing, implementation, evaluation, and human approval boundaries; communicates what worked, what failed, and what remains unproven.

01 SELECTED TECHNICAL WORK

AlexOS — Governed Local AI Development Alpha / Architecture / implementation / evaluation

- Framed a recurring product risk—useful model output being mistaken for permission or durable truth—and designed a desktop alpha separating proposals, software enforcement, human decisions, and correction history.
- Owned implementation across Tauri 2, React 19, TypeScript, Rust, and SQLite, including typed commands, local-model identity checks, authority boundaries, and export/restore controls.
- Built an adversarial evaluation program that exposed 28 failures in a 35-case baseline; the corrected reference kernel passed 35/35 legacy and 45/45 new structural/resilience checks.

Local-First Router — Deterministic, Local, and Approval-Gated Lanes / Python / policy / validation

- Turned cost, privacy, and authorization ambiguity into deterministic, local-model, cloud-approved, and ask-first lanes with redacted audit records, kill switches, and reversible activation.
- Stopped a model-mediated normalization approach after a preregistered 6/12 result; shipped a zero-token deterministic replacement that passed 22/22 tests twice, frozen replay, and 32/32 concurrent audit checks.
- Kept an unproven global bridge inactive after hook-discovery failure while separately verifying the explicit router and bounded local extraction path.

02 WORKFLOW DISCOVERY AND BUSINESS INTERVENTION

Baron Engineering / What Serves Music / Founder-operated discovery and readiness workflow

- Converted a fuzzy studio-improvement goal into a decision owner, operating objective, evidence requirements, workflow boundaries, success conditions, and separate human approval points.
- Defined five acceptance cases before execution; the readiness gate passed all six automated tests and correctly blocked on 27 evidence issues rather than fabricate advice.
- Produced reviewable fieldbook, readiness, limitation, and next-step artifacts while keeping architecture, purchasing, fabrication, listening judgment, and irreversible changes behind human checkpoints.

03 EVALUATION, COMMUNICATION, AND PROVENANCE

- Shipped a two-domain public evidence system separating institutional services from applied-AI work; verified 32 live routes, mobile fitment, redirects, downloads, privacy, and rollback before and after publication.
- Added a language-provenance regression after model reuse of participant wording risked appearing independently corroborated; preserved behavioral and evaluator failures separately.
- Reviewed an 8,474-file corpus, hashed 983 bounded artifacts, and mapped 79 exact-duplicate groups while excluding private and secret-bearing material from inspection.

04 TECHNICAL TOOLKIT

PRODUCT + DELIVERY Workflow discovery, problem framing, requirements, acceptance criteria, risk tracking, reviewable decision artifacts

BUILD Rust, Tauri, React, TypeScript, Python, SQLite

AI SYSTEMS Local LLM/Ollama workflows, routing, structured outputs, schema validation, context and authority boundaries

EVALUATION Preregistration, adversarial tests, regression design, synthetic fixtures, concurrency, failure preservation

OPERATIONS Typed IPC, provenance, audit redaction, export/restore, rollback, privacy review, browser and accessibility verification