



# Curtis Ault

## Software Engineer

Software engineer with experience building and operating production systems, currently focused on real-time operational platforms built with Elixir, Phoenix, and LiveView. I specialize in untangling legacy systems, making them faster and more reliable, and shipping change incrementally without disrupting the people who depend on the system around the clock.

## EXPERIENCE

### Total Sand Solution Software Engineer

Feb 2023 – Present

Elixir · Phoenix · LiveView · Oban · PostgreSQL · AWS

A logistics platform powering 24/7 frac-sand delivery — the system dispatchers, drivers, and field operators rely on to coordinate loads, communicate in real time, and keep well sites supplied. I own features end-to-end, from the data model through the dispatcher and field-operator UIs.

- Led a large backend re-architecture to enable multi-frac functionality, porting the entire forecast onto a modern LiveView page.
- Rebuilt a core reporting path on materialized views, cutting invoice-pipeline load times.
- Migrated background refreshes to Oban for fault tolerance and graceful crash recovery.
- Built a third-party payroll integration (UKG) end-to-end from prototype to production, automating driver piece-rate pay submissions.
- Shipped an OCR-based document-validation (BOL auditing) pipeline, cutting manual review.
- Delivered a real-time dispatcher overview and a field-operator PWA.
- Expanded the automation engine and drove a steady stream of deprecations and framework migrations as the platform matured.
- Instrumented the invoicing pipeline with telemetry surfaced in Grafana, giving the production visibility that caught and resolved query-timeout failures.

### Corvus Insurance Software Engineer

Jan 2021 – Jan 2023

Elixir · Elm · GraphQL · Oban · AWS

Full-stack work on a cyber-insurance platform (Elixir backend, Elm frontend, GraphQL between); served as project lead under the Shape Up methodology, partnering with PM and design on scoping, vertical slicing, and cycle delivery.

- Integrated the Jira API so policyholders could dispute automated cyber-risk-scan results directly.
- Built a Bill.com integration with Ecto embedded schemas covering the full validation surface.
- Implemented an Oban-driven sync with a third-party billing API, including backend data transformation into our schema.
- Built a custom macro that encoded business-rule conversions for internal CSV processing.
- Built internal tooling for the Claims team to upload CSVs and update backend platform data without engineering involvement.
- Automated repetitive support tasks — like re-running failed scans — with a Livebook built during an on-call rotation.

## CONTACT

San Antonio, TX  
curtisault@gmail.com  
curtisault.com  
github.com/curtisault

## SKILLS

### Languages

Elixir  
Elm  
Rust  
C#/.NET  
Python  
SQL

### Backend & Runtime

Phoenix  
LiveView  
OTP  
Oban  
GraphQL  
RabbitMQ

### Data

PostgreSQL  
SQL Server  
Redis  
materialized views  
Ecto  
Entity Framework

### Platform & Infra

AWS  
Azure  
Kubernetes  
Blob Storage  
SFTP pipelines  
Grafana

### Integrations

UKG payroll  
Bill.com  
Jira API  
OCR pipelines

## TOOLS

Neovim  
tmux  
Livebook  
fish  
Docker  
Linux  
Git  
MacOS

## Healthcare Bluebook Developer II

Jun 2014 – Dec 2020

C#/.NET · Angular 2+ · Azure · Python

Six years on a healthcare cost-transparency product, working across web, desktop, services, and data through a multi-year modernization off a legacy C# MVC codebase.

- Contributed to migrating a legacy C# MVC application to Angular 2+ over RESTful microservices on Azure (Kubernetes, SQL Server, Redis, Blob Storage).
- Built RabbitMQ-backed SFTP infrastructure and maintained a Python analytics service for CSV data processing.

## DISCIPLINES

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**Agile** — Iterative delivery in tight feedback loops — small slices, frequent course-correction.

**Shape Up** — Fixed-appetite scoping, vertical slicing, and honest cut lines; led delivery cycles as project lead.

**Test-driven development** — Tests first to drive design and to refactor legacy code safely.

**Telemetry & observability** — Early instrumentation so failures surface before users feel them.

**Stakeholder-led discovery** — Discovery driven by the people who run the operation — dispatchers, field operators, PMs.

**Resilience & fault tolerance** — Supervision trees and idempotent, retryable jobs so partial failures self-heal.

## EDUCATION

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**Trevecca Nazarene University** · B.S. Computer Information Technology · May 2013

## SELECTED WORK

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**Alpaca Owners Association** · Consulting

A web application that modernizes fleece scoring at alpaca shows — replacing a manual, spreadsheet-driven workflow with a real-time scoring tool that cuts hours off every event and gives the association a reliable, auditable record of every result.

**Barad-dûr** · Open source · Rust

A “smart” file watcher that runs typed, parallel command pipelines (lint, test, build) on file change, giving near-real-time feedback. An out-of-band alternative to slow, bypass-prone git hooks — config lives in the repo, so there's no team-wide install ceremony.

[crates.io/crates/baraddur](https://crates.io/crates/baraddur)