

About

JACK NOEL · HELLO@JACKNOEL.DEV · JACKNOEL.DEV · GITHUB.COM/SIGNALDECK-APP

I'm an engineer who enjoys building systems end-to-end — from the database up to the pixels. I'm most at home when design, product, and engineering decisions blur together.

My current focus is **SignalDeck**, an AI-assisted trading platform that coordinates a fleet of Claude-based strategist agents to surface trade ideas and monitor risk in real-time.

Experience

Full-stack build partner on DarkGray, a deterministic 5-lever apartment pricing engine for a mid-market multifamily operator in Indianapolis. V1 is internal tooling; the long-term vision is a SaaS product for mid-market operators.

Built the Next.js 14 + TypeScript dashboard (App Router, Tailwind, shadcn/ui) on Vercel — property rollups, unit-level recommendation drill-downs, explainability panels, and admin tooling for pricing config.

Shipped a FastAPI + async SQLAlchemy backend on AWS App Runner with a pure-Python pricing engine (the core IP) decoupled from the framework — unit-testable in isolation and safe to refactor without touching the web layer.

Integrated 6+ PMS and market-data connectors (RealPage, Yardi, OneSite, Entrata, AppFolio, Excel ingestion) behind a single connector interface, letting new data sources drop in without touching pricing logic.

Designed the scheduled ingestion + backtesting pipeline (40KB+ pipeline module) that lands daily market and operational data into Supabase/PostgreSQL and replays historical pricing decisions for validation.

Implemented an OpenAPI → TypeScript codegen flow so the frontend types stay in lockstep with FastAPI changes — no drift, no duplicated DTOs.

Enforced the project's non-negotiable guardrails in code: antitrust-safe data boundaries (no non-public competitor pricing), plain-English explainability for every recommendation, deterministic outputs, and audit logging on every config change.

Set up the GitHub Actions CI matrix (web + api pipelines, deploy workflow, scheduled public-data imports) plus pre-commit linting via Husky and custom ruff/ESLint runners.

TypeScript

Next.js 14

Python 3.12

FastAPI

SQLAlchemy

PostgreSQL

Supabase

AWS App Runner

Vercel

Turborepo

Own end-to-end test automation for the Partner Portal platform — API, UI E2E, and build verification — across three microservices and two environments.

Architected a unified test automation framework covering 330+ tests across Partner Portal API, Auth Management API, and UI E2E, driven by a single cross-platform Python orchestrator that standardized execution, environment handling, and reporting.

Built a LambdaTest cloud integration that injects video-recording links directly into Zephyr Scale test executions — one-click failure evidence for every UI run across the QA org.

Designed WebdriverIO 9 + TypeScript UI E2E coverage (83 specs) with environment-aware configs for local Docker Selenium Grid and LambdaTest cloud — identical test code, swappable runtime.

Shipped an OpenAPI-driven API client codegen pipeline across three services, keeping tests decoupled from endpoint drift and enabling rapid suite expansion as new endpoints land.

Productionized a Zephyr Scale reporting layer with environment-specific folder routing and auto-named test cycles, eliminating manual triage across 24+ scheduled suites in dev and qa.

Orchestrated GitHub Actions CI/CD with matrix strategies running 48 concurrent jobs nightly (24 API directories × 2 envs), plus PR validation gates for lint, typecheck, and smoke tests.

Containerized API, UI, BVT, and debug stacks via Docker Compose — new engineers productive in hours, not days.

Refactored shared test infrastructure (TestSetupManager, EntityFactory, CleanupManager) to eliminate flaky teardown and enable parallel-safe data fixtures.

TypeScript

Python

WebdriverIO

Mocha

Docker

LambdaTest

Zephyr Scale

GitHub Actions

OpenAPI

Stack

TypeScript · React · Next.js

Python · AWS · DynamoDB

WebdriverIO · Playwright · Mocha

Claude · OpenAI

Elsewhere

GitHub ↗

hello@jacknoel.dev ↗