



Basleal Ayinalem
Founding Product
Engineer

Product Engineer: From Design to Deployment.

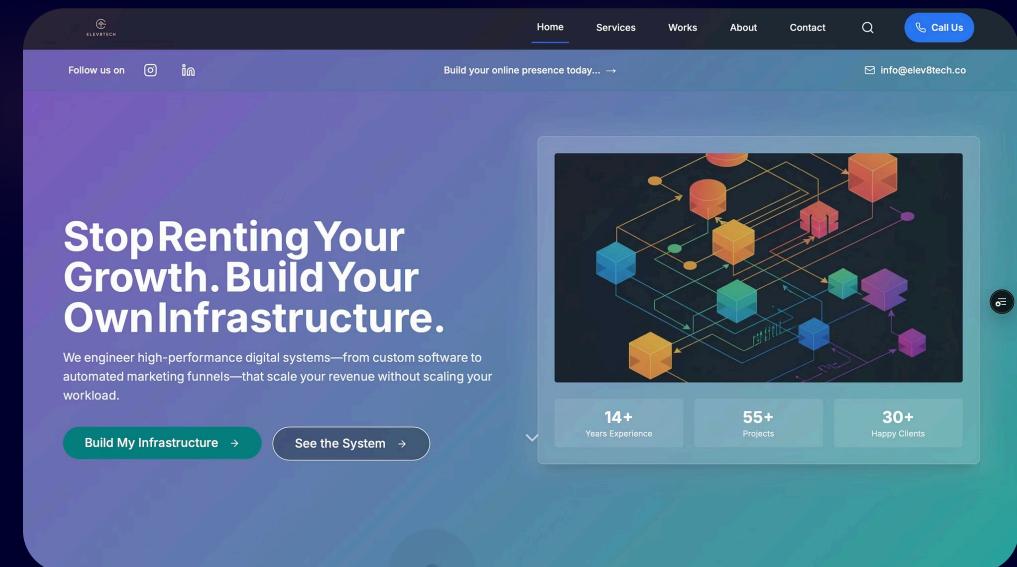
The Design Engineer Hybrid

Beyond Backend Code

I don't just write backend code, I build the brand, craft the interface, and own the entire product lifecycle. As Founder of Elev8Tech, I've shipped 30+ platforms, consistently translating ambiguous market needs into deployed, production-ready software.

This hybrid skillset means I can move from whiteboard sketches to high-fidelity Figma prototypes to deployed architecture without handoffs. I speak both design and engineering fluently, ensuring visual polish never compromises system integrity.

My approach bridges the gap between aesthetic excellence and technical precision—the kind of versatility essential for early-stage product engineering where every decision compounds.



High-Stakes Compliance Architecture



U.S. Treasury TTB Label Verifier

Automating the validation of regulated alcohol labels against strict federal codes (OFAC/FinCEN)



AI-Powered Verification Engine

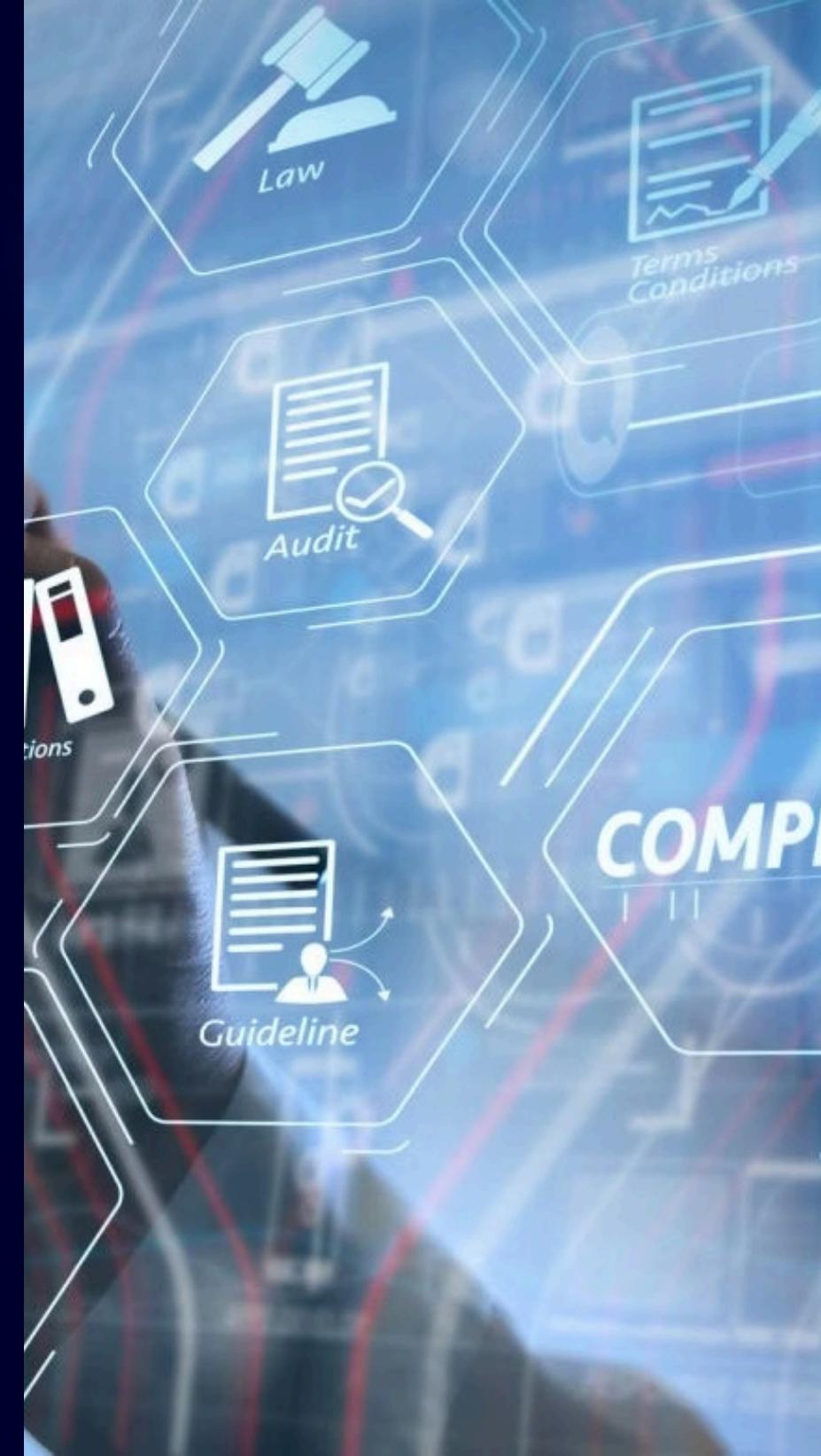
An intelligent workspace that ingests raw label images and runs them against a "Human-in-the-Loop" verification system



100% Audit Trail Integrity

Every validation decision is logged, traceable, and defensible, critical for regulatory compliance

This project required deep understanding of federal regulation, data integrity under audit conditions, and the nuance of AI-assisted decision-making. The challenge wasn't just technical it was about building trust into the architecture itself, ensuring every transaction could withstand regulatory scrutiny.



Complex Logic Engines

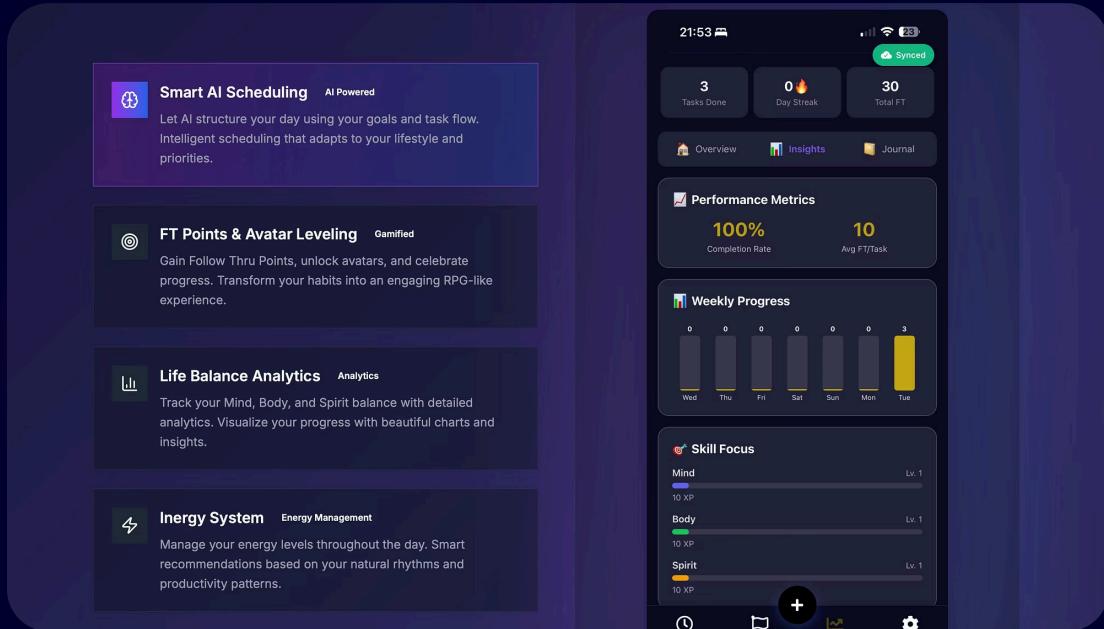
Follow Thru: Smart AI Scheduling

Built a productivity platform with an intelligent scheduling engine that resolves conflicting constraints across three dimensions: Time, Priority, and Energy. This multi-variable decision logic directly mirrors the complexity of fintech underwriting systems.

Technical Architecture

- React Native for cross-platform deployment
- Zustand for offline-first state management
- Expo for rapid iteration and deployment
- Custom constraint solver handling real-time optimization

The engine dynamically balances user preferences against hard constraints, learning patterns over time to improve recommendations—the same pattern-recognition and rule-balancing required in credit risk models and fraud detection systems.



AI & Data Safety

01

Ground Truth Validation

AI is only as reliable as its training data and validation mechanisms. Built comprehensive testing interfaces to ensure model accuracy.

02

Probability Score Visualization

Created raw model interfaces to test and visualize probability distributions, making AI decision-making transparent and auditable.

03

Hallucination Detection

Implemented safeguards to catch model "hallucinations" before they reach production critical for financial systems where errors have real consequences.

For ARI 510 Sentiment Analysis & AI Auditing, I built the infrastructure to question every model output. In fintech, this level of scrutiny isn't optional, it's foundational.



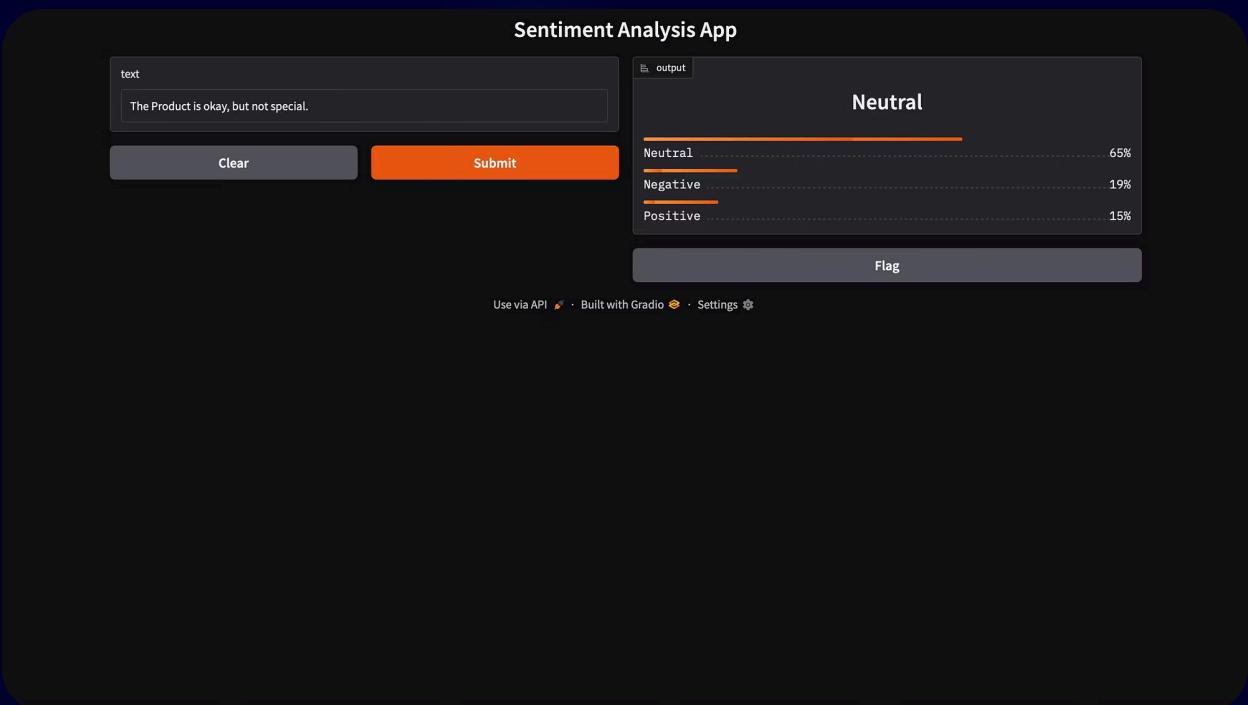
Industrial Impact: Growing American GDP

Building for the Physical World

My philosophy centers on tangible economic impact: software that improves real-world operations in construction, maintenance, and logistics.

For Above All Maintenance, I digitized field operations, improving efficiency, revenue tracking, and resource allocation. This work taught me how software can transform traditional industries when designed with operational realities in mind.

Why Substrate: I'm ready to scale this approach from small business maintenance software to national financial infrastructure—systems that move capital, enable commerce, and strengthen economic resilience.



The figure shows a screenshot of the TTB Label Verifier. The top header reads "TTB Label Verifier" and "AI-Powered Compliance Assistant". The interface is divided into two main sections: "1. Application Details" on the left and "Verification Results" on the right.

1. Application Details:

- Brand Name: Kings County Distillery
- Product Class/Type: Bourbon Whiskey
- Alcohol Content: 45
- Net Contents: 200ml

2. Upload Label: A dashed box with an upward arrow icon and the text "Click to upload label image". Below this is a thumbnail image of a brown bottle of bourbon whiskey.

Verification Results:

- Brand Name:** APPROVED (with a green checkmark icon)
- DETECTED: "KINGS COUNTY DISTILLERY"
REASON: The brand name on the label matches exactly with the form data.
- Product Type:** MATCH (with a green checkmark icon)
- DETECTED: "bourbon whiskey"
REASON: The product type on the label matches the form data.
- Alcohol Content:** MATCH (with a green checkmark icon)
- DETECTED: "45% alcohol by volume"
REASON: The alcohol content on the label matches the form data when converted from percentage to numeric value.
- Net Contents:** MATCH (with a green checkmark icon)
- DETECTED: "200ml"
REASON: The net content on the label matches the form data.



Ready to Ship

Basleal Ayinalem

Founding Product Engineer with 30+ shipped platforms

Technical Versatility

From AI compliance systems to offline-first mobile apps—full-stack execution

Design + Engineering

No handoffs. Figma to production architecture, owned end-to-end

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