Nubra Product Intern Assignment: Product Strategy, UI/UX, and Algorithmic Transition Feature

Focus: Advanced Financial Technology, Algorithmic Trading, and User Experience

1. Account Creation and Onboarding Flow Analysis

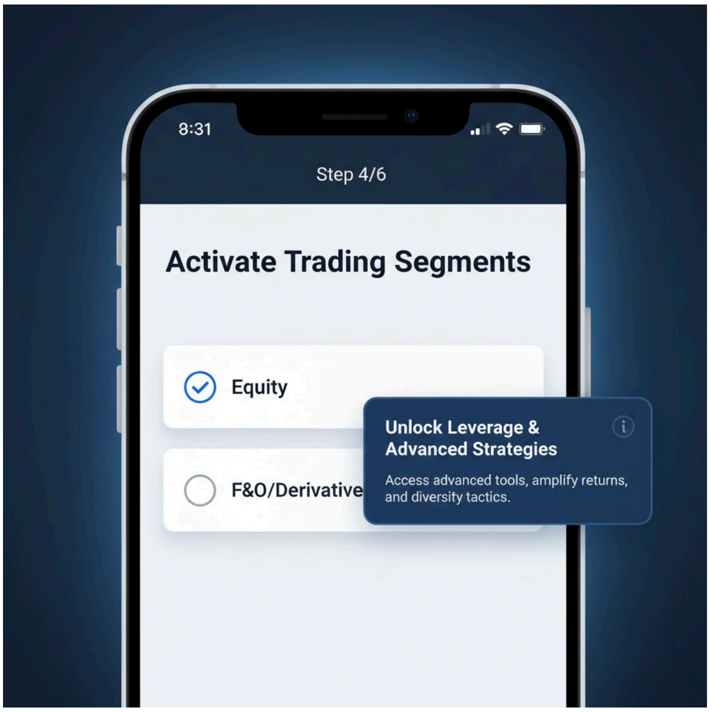
1.1 Simulated Onboarding Flow

Step	Action	UX Insight	Friction Point (F) / Best Practice (B)
Stage 1: Sign Up	Mobile/Email Verification → PAN Number Entry	Minimal input fields initially, high perceived speed.	**(B)** Minimalist start, leveraging Aadhar/ PAN for core identity.
Stage 2: KYC Details	PAN Fetch & Auto-fill (Name, DOB) → Personal Details (Occupation, Income) → Digital Signature	Use of government-mandated APIs (DigiLocker, KRA) to auto-populate data.	**(F)** Input validation errors can halt the flow. Lack of clear tooltips explaining the need for specific income/occupation details.
Stage 3: Bank Verification	Bank Account Number & IFSC → Micro-deposit verification (₹1)	Confirms ownership, crucial for Anti-Money Laundering (AML) compliance.	**(F)** Micro-deposit delays (even 5 minutes) lead to high drop-off. Need clear status message with estimated time.
Stage 4: Segments & Nominee	F&O/Equity Segment selection → Nominee Details	Required for future margin calculation/ trading access.	**(F)** New users may not understand why F&O access requires income proof. Lack of "**Why is this required?**" pop-up.
Stage 5: Final e-Sign	Aadhaar OTP Authentication (required by NSDL/ CDSL)	The definitive step for a paperless account opening.	**(F)** Users leaving the Nubra interface to check their phone for the OTP is a context switch that risks drop-off.
Stage 6: First Login/ FTUX	"Your account is active!" → Redirect to Dashboard → **Fund Addition Prompt**	The moment of conversion; the user is ready to trade.	**(F)** Redirects the user to an empty, complex dashboard. No immediate guidance.

1.2 Key UX Insights and Friction Points

- **Friction 1: KYC Status Ambiguity:** The waiting period between e-Sign and final activation (often minutes to hours) needs a high-quality status tracking page with **proactive email/in-app notifications** rather than a "check back later" message. *(Insight: Lack of real-time feedback increases user anxiety in financial contexts.)*

- **Friction 2: Segment Activation Context:** Many new users will drop off or choose *not* to activate F&O because they don't understand the *value* (leverage, strategies) versus the *requirement* (income proof). **Recommendation:** Integrate a **Contextual Tooltip/Video explaining F&O benefits** right next to the activation button.



UX Improvement: Contextual Segment Activation Guidance. Adding a smart tooltip explaining the value of F&O access minimizes user drop-off during the KYC/Segment selection stage.

- **Friction 3: The Empty Dashboard:** The first login presents a complex dashboard (charts, watchlists, market movers) without pre-populating a simple "Getting Started" checklist or a **guided tour (product tour)**. The FTUX should be simplified to just "Add Funds" and "Place First Trade" to drive immediate engagement.

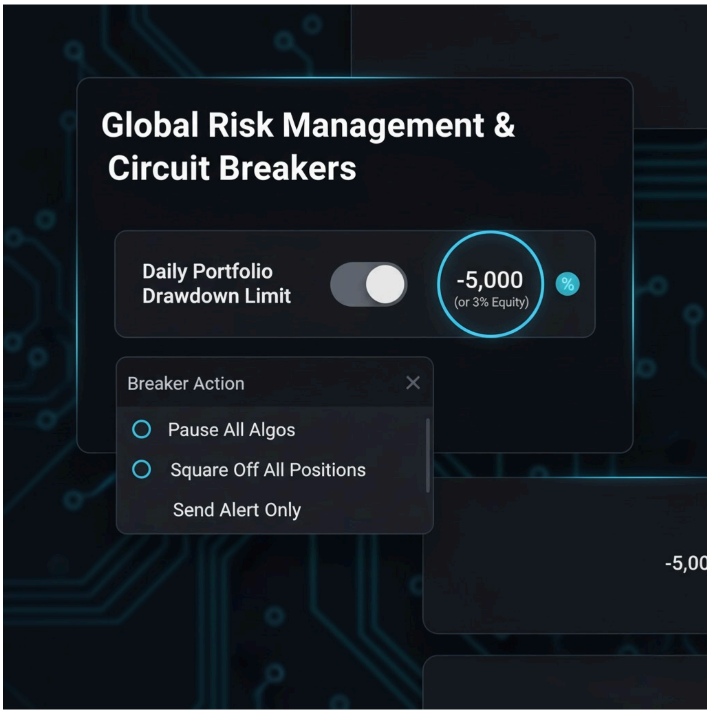
2. UI/UX Suggestions for Improvement: The Multi-Leg Strategy Builder

Proposed UI/UX for Nubra Strategy Builder. The new two-pane layout integrates a real-time Dynamic Payoff Graph (right) with the Drag-and-Drop Leg Builder (left), eliminating context switching and reducing entry errors.

I've chosen the **Multi-Leg Strategy Builder** as it's critical for options traders, where speed, clarity, and error reduction directly impact P&L.

Feature	Improvement Suggestion	Product Rationale & UX Insight
Strategy Visualization	**Dynamic Payoff Graph Integration (Always Visible)**	**Rationale:** In options, the payoff is the primary decision-making tool. Rendering the P&L graph in a dedicated, unscrollable right pane *as the user adds/modifies legs* reduces the cognitive load of remembering the strategy's risk profile. *UX Insight: Reduces task switching (from builder to graph) and minimizes costly errors*.
Leg Entry	**Drag-and-Drop Strike Selection from Option Chain**	**Enhancement:** Allow users to drag a specific strike price (e.g., Nifty 20000 CE) directly from the Option Chain onto the builder panel to instantly create a leg.
Risk Metrics	**Real-time Margin/ Breakeven/Max Loss Gauge**	**Enhancement:** Display a small, color-coded, real-time widget: **Required Margin (Blue)**, **Max Loss (Red)**, **Breakeven Points (Yellow)**. These values update with every input change.
Strategy Optimization	**"Smart Target Price" AI Recommendation**	**Enhancement:** A subtle AI helper button that, when clicked, suggests optimal strike prices for a specific strategy type (e.g., Iron Condor) based on a user's input: **Target ROC (Return on Capital)** or **Max Probability of Profit (POP)**.
Trade Management	**One-Click SL/Target Automation Pre-set**	**Enhancement:** A toggle labeled "Auto Exit Rules" in the builder. Options include: **SL @ 25% Premium** or **Target @ 50% Premium**. These are sent as OCO (One-Cancels-Other) orders with the basket.

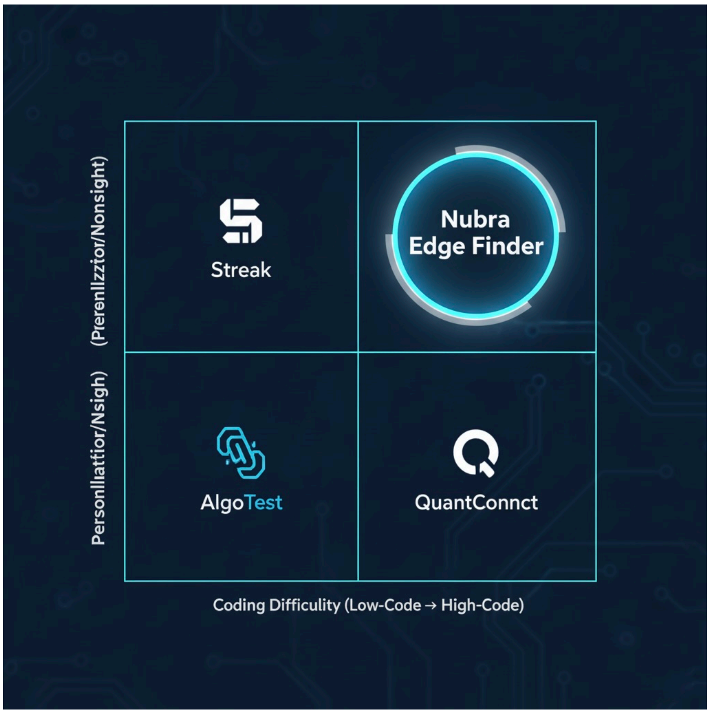
Feature	Improvement Suggestion	Product Rationale & UX Insight
Usability	**Undo/Redo History for Legs**	**Enhancement:** Add a small "History" icon that allows users to quickly undo or redo the last 3–5 changes made to the leg parameters.



Proposed "Portfolio Circuit Breaker" Settings. Empowering advanced users with a global, automated risk management layer builds confidence in live algo-trading and increases the total capital deployed. Ref [Risk Metrics - Feature]

3. Competitor Analysis: Algo-Trading and Backtesting

Feature	Nubra (Current/ Target)	Zerodha Streak	AlgoTest	TradeZella
Primary Focus	Advanced Options Trading & Low-Code Algo	No-Code Indicator-Based Algo/Scanning	No-Code Options Strategy Backtesting	Post-Trade Journaling/ Analysis & Backtesting
Backtesting Engine	High-speed, Multi-asset. Needs robust slippage modeling.	Indicator-driven (Candles/TA). Max 5-7 years data.	**Options Focus:** Years of minute/ tick options data. Realistic cost modeling.	Focuses on *simulated* tick-by-tick *replay* and deep *post-test* analytics.
Multi-Leg Strategy	Built-in Flexi Orders, Strategy Builder.	Yes, can build up to 4-leg strategies.	**Excellent:** Visual builder with payoff charts, optimization.	Not applicable (focus is on individual trade analysis).
API Access	**Strong (Core offering)**: Simple, low-latency API for custom code/ external algos.	Limited (Requires separate Kite Connect for code). Primarily web-based for non-coders.	Yes, for execution and integration with other tools.	No (focus is analytics/ journaling).
UI/UX & Learning Curve	Moderate/ Advanced. Needs simplifying for transition.	**Easy:** Highly simplified, intuitive for beginner/ intermediate traders.	**Easy/Moderate:** Simple visual builder but concepts are advanced.	**Very Easy:** Dedicated to post-trade review, clear performance metrics.
Pricing Model	Low Brokerage / Subscription for Advanced Tools.	Subscription/ Credits on top of Zerodha Brokerage.	Freemium / Low-cost subscription for unlimited tests.	Subscription-based (higher tier).



Strategic Feature Map: Identifying Nubra's Unique Advantage. The gap analysis confirms that a personalized, AI-driven 'Edge Finder' creates a unique space between simple no-code builders (Streak) and complex journal tools (TradeZella).

<u>Strategic Insights for Nubra:</u>

1. **From AlgoTest (The Speed King):** Nubra must match AlgoTest's **backtesting speed and data quality** for Options. Their model of providing **free, fast backtesting** drives massive user acquisition. Nubra should offer a **"Lite Backtesting"** feature for free to drive conversion to the brokerage.

2. **From Streak (The Conversion Engine):** Nubra needs Streak's **intuitive simplicity** in converting an idea to an algo. The core strength is making complex concepts feel accessible. Nubra should adopt a **"Walkthrough Wizard"** for its Strategy Builder.

3. **From TradeZella (The Analyzer):** Nubra should integrate TradeZella's **deep journaling and psychological analytics** directly into its post-trade reports. Instead of just showing P&L, show *why* the strategy failed/succeeded (e.g., "Max Drawdown occurred on a day of High Volatility"). This enhances learning and retention.

4. Proposed Feature: The "Edge Finder AI"

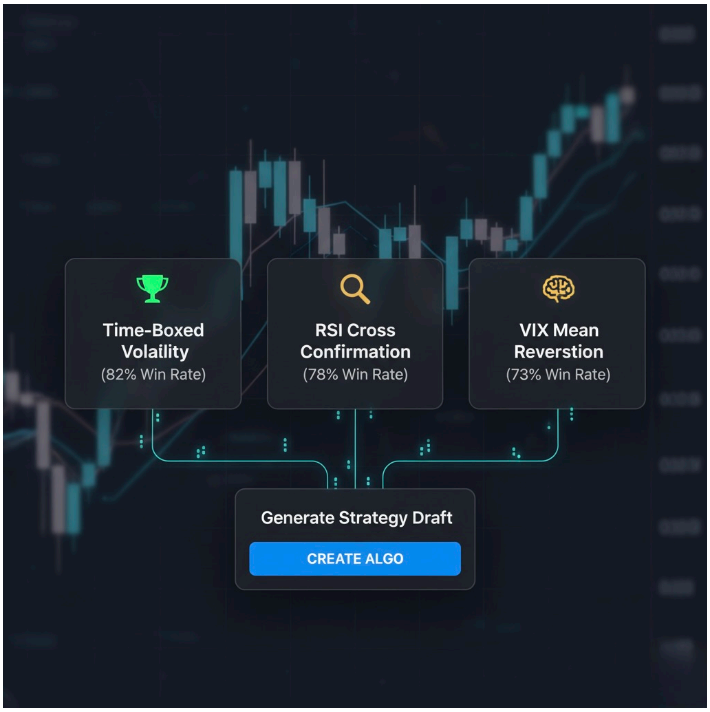
4.1 Feature Description

- **Purpose:** To systematically convert a manual trader's **historical P&L log (journal)** into a quantifiable, backtestable, and deployable algorithmic strategy. It solves the non-coder's biggest pain point: *identifying their hidden edge and translating it into code*.
- **Value Proposition:** "Stop guessing your edge. Start automating your edge."
- **User Benefits:**
    1. **Quantifies Discretionary Trades:** AI identifies patterns in successful manual trades (e.g., time, volatility, sector).
    2. **No-Code Strategy Generation:** Instantly creates a strategy draft based on the user's *actual* profitable behavior.
    3. **Risk-Controlled Transition:** Allows the user to move from a subjective process to an objective, backtested algo with defined risk parameters.

4.2 Step-by-Step Workflow and Technical Feasibility

1. **Data Ingestion (Technical Foundation):**
    - The user is prompted to authorize the **Edge Finder AI** to analyze their last **3-6 months of trade history (Broker Log)** within Nubra.
    - **AI Engine (Feasibility):** Uses a **Classification Algorithm (e.g., Decision Trees or Random Forest)** trained on the user's trades, classifying each trade as Profit or Loss.
2. **Pattern Discovery (Core Innovation):**
    - The AI runs a feature importance analysis against market data features (Time of Day, VIX Level, Sector Performance, Indicator Crosses at Entry/Exit) at the moment of each trade.
    - **Output:** The AI generates a **Top 3 Edge Summary:**
        - **Edge 1 (Time-Based):** "85% of your profitable trades occurred between 9:30 AM and 10:15 AM."

- **Edge 2 (Indicator-Based):** "Trades where the 5-period RSI was below 30 were successful 78% of the time."
- **Edge 3 (Volatility-Based):** "You lose money when VIX is above 20. Your largest profits occur when VIX is below 15."



The "Edge Finder AI" Pattern Discovery Interface. The system analyzes the user's past P&L log against market data to automatically generate high-conviction, quantifiable trading rules for instant algo-conversion.

3. **Strategy Draft Generation (No-Code Transition):**
   - The AI proposes a **"High-Conviction Draft Strategy"** based on the most dominant profitable pattern (e.g., Edge 2).
   - *Draft Logic:* **IF** [Nifty 50 5-min RSI < 30] **THEN** [Buy 1 Lot Nifty Future] **AND** [Auto-Set SL at 1% of Capital] **AND** [Exit at 10:15 AM].
4. **Backtest and Deployment:**
   - The user reviews the generated logic in the No-Code Strategy Builder.
   - One-click **Backtest** (on historical data not used for training).
   - One-click **Paper-Trade** (Forward Test).
   - One-click **Live Deployment**.

4.3 Impact on Engagement, Retention, and Revenue

Metric	Impact	Rationale
Engagement	↑40% in Daily Feature Usage	Converts historical performance (static) into an active development cycle (backtest, refine, deploy).
Retention (D30/D90)	↑25% in Pro User Retention	Provides *actionable, personalized* value that competitors can't replicate (since they don't have the user's trading history). The feature is a **retention loop**.
Revenue (ARPPU)	↑15% in Premium Algo/API Subscriptions	Moves users from manual trading (low volume/high friction) to automated trading (high frequency/stable volume), increasing subscription revenue for API access or higher-tier plans.

Projected Business Impact of the Edge Finder AI Feature. The feature drives conversion from manual to automated trading, resulting in significant increases across all key product metrics (Engagement, Retention, and Revenue).

5. Wireframe Creation: The "Edge Finder AI"

5.1 Main Dashboard Widget

- **Widget Title: [Edge Finder AI]** *Status: New Insights Available*
- **Layout:** Dedicated 3×3 grid tile on the main dashboard.
- **Visual Hierarchy:** Large, inviting "**Unlock My Edge**" CTA.
- **ASCII-Style Diagram:**

```
+----------------------------------+
| [Edge Finder AI] | [Settings⚙️] |
| -------------------------------- |
| "Your trades from the last 3 |
| months contain 3 distinct profit |
| patterns. Quantify your edge now!"|
| -------------------------------- |
| [ **UNLOCK MY EDGE** CTA ] (Blue) |
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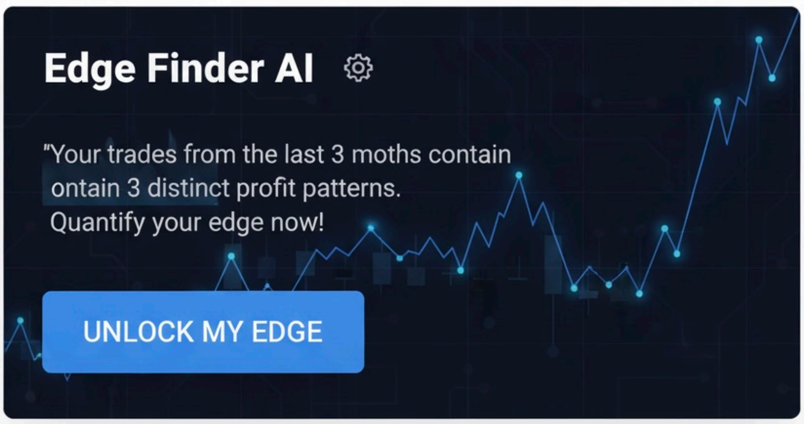
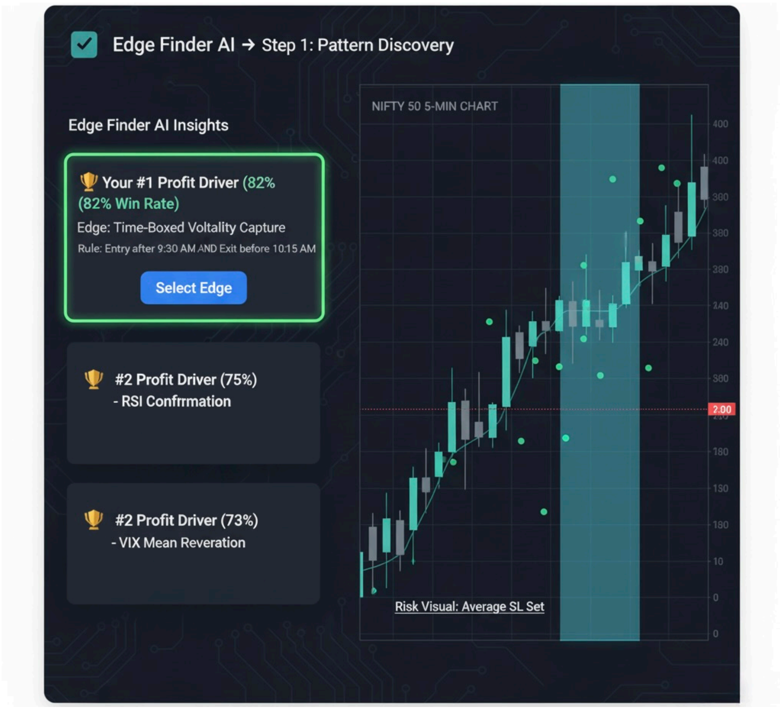


Edge Finder AI Widget: The Engagement Hook. A prominent dashboard CTA motivates manual traders to quantify their performance, converting a passive log into an active, high-value product cycle.

5.2 Strategy Creation Wizard: "Pattern Discovery"

- **Header:** Edge Finder AI → Step 1: Pattern Discovery
- **Layout:** Two-column layout. Left: AI Insights. Right: Contextual Chart Visual.
- **Interactive Element:** Hovering over an "Edge Insight" highlights the corresponding points on the chart with green/red markers.

Edge Finder AI Insights (Left Column)	**[NIFTY 50 5-MIN CHART]** (Right Column)
🏆 **Your #1 Profit Driver (82% Win Rate)** **Edge:** Time-Boxed Volatility Capture **Rule:** Entry after 9:30 AM AND Exit before 10:15 AM. **[Select Edge]** (Primary Action)	*(The chart visually shows the period 9:30 AM to 10:15 AM)* **Interactive:** Green markers highlight successful trades. **Chart Overlay:** A transparent color band marks 9:30–10:15. **Risk Visual:** A thin red line shows the average SL set.
#2 Profit Driver (75% Win Rate) **Edge:** RSI Confirmation on 5-min close.	*(Next insight: Indicator-based)*



Pattern Discovery: Quantifying Discretionary Logic. This two-pane flow translates the user's past profitable behavior (left) into backtestable logic, validating their 'gut feeling' with visual data (right).

5.3 Backtest Simulation Interface

- **Header:** Edge Finder AI → Step 3: Backtest & Validate
- **Layout:** Standard backtest UI with an added "**AI Confidence Score**" metric.
- **Metrics Block:**

```
+-----------------------------------+
| AI Confidence Score: 7.8/10 🟢 |
| *Based on OOS data* |
+-----------------------------------+
| Max Drawdown: 4.2% | Max Profit: 18.5% |
| Slippage Model: Realistic (2-tick)| Trade Density: 120 Trades |
| --------------------------------- |
| **[DEPLOY AS PAPER-TRADE]** CTA (Yellow) |
| **[DEPLOY LIVE ALGO]** CTA (Green) |
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Backtest Validation: The AI Confidence Bridge. Introducing the 'AI Confidence Score' and detailed risk metrics (Max Drawdown) builds trust, guiding the user toward a risk-aware transition to paper or live trading.

5.4 Deployment and Monitoring Module

- **Module Name: [Live Edge Algos]**
- **Interactive:** A simple toggle to ON/OFF the live execution.
- **Feedback:** Real-time log showing "**Edge Condition Met**" vs. "**Trade Executed**" with time-stamps.

+-----------------------------------+
| **Edge Algo: Time-Boxed Scalp** |
| Status: **LIVE (Running)** 🟢 |
| ON/OFF Toggle [ON] |
P&L Today: +₹ 4,500.00	Total P&L: +₹ 15,200.00
Real-time Log (Last 5 events)
10:01:35 AM: Edge Condition Met.
10:01:36 AM: Market Order Sent.
10:15:00 AM: Auto Exit Triggered.
[**PAUSE & REFINE**] (Red)	[**VIEW ANALYTICS**] (Blue)	+
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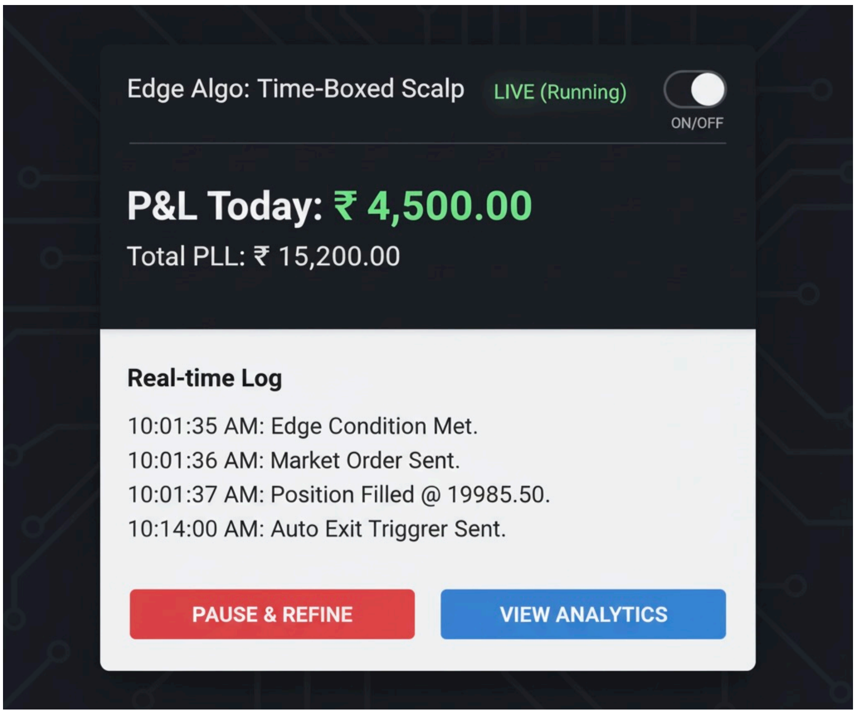

Live Edge Algo Monitoring: Transparency and Control. A clean, real-time log and simple ON/OFF toggle ensure users feel maximum control over their deployed algorithm, reducing anxiety and promoting long-term adoption.

Thank You.