

AI PRODUCT CASE STUDY

# Commodity Forecasting & Market Intelligence

A desktop-first intelligence platform combining market data, technical signals and AI-assisted forecasting.

A commodity intelligence platform was built for professional market participants, starting with the sugar market. The product is designed for traders, brokers, sugar mills, procurement teams, commodity analysts, advisory teams, and institutional commodity desks that need faster interpretation of market signals.

**Project classification:** This project showcases a desktop-first commodity intelligence product for professional market participants.



|                                                                                |                                                                   |                              |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------|
| <b>INDUSTRY</b><br>Commodity Markets & Trading                                 | <b>CLIENT TYPE</b><br>Professional commodity intelligence product | <b>EVIDENCE</b><br>Projected |
| <b>DELIVERY SCOPE</b><br>Forecasting, analytics, licensing and desktop product |                                                                   |                              |

## **Faster daily and intraday market interpretation**

Scheduled ingestion and analysis bring daily and intraday market inputs into one review workflow.

## **Consolidated technical, macro and scenario signals**

Technical indicators, macro drivers and scenario outputs are consolidated in the desktop product.

## **Clearer decision support for professional commodity users**

Reports and scenario views are designed to support professional interpretation rather than replace trading judgement.

### **01 / BUSINESS CONTEXT**

## **Who needed the solution**

A commodity intelligence platform was built for professional market participants, starting with the sugar market. The product is designed for traders, brokers, sugar mills, procurement teams, commodity analysts, advisory teams, and institutional commodity desks that need faster interpretation of market signals. The pitch deck positions the product as an AI-powered forecasting and market intelligence system for commodity decision-makers, starting with sugar, with structured insights, technical signals, and decision-ready analytics. The platform was built as a premium desktop-first analytics product with controlled user access, licensing, company-level usage, concurrent-user plans, and a recurring subscription model.

### **02 / CHALLENGE**

## **What needed to change**

Commodity teams do not suffer from a lack of data. They suffer from scattered signals and slow interpretation.

**Market signals were spread across several sources**

Market data spread across multiple sources.

**Charts and technical indicators required manual interpretation**

Manual chart and indicator interpretation.

**Daily and intraday forecasts took time to prepare**

Slow daily and intraday forecast preparation.

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## Teams lacked one structured scenario view

Lack of structured scenario-based market guidance.

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## Commercial access required licensing, sessions and device controls

Need for commercial access control, licenses, sessions, and device control for paid users The goal was to build a product that converts raw market signals into decision-ready commodity intelligence.

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## 03 / WORKFLOW TRANSFORMATION

# Before and after

### Previous workflow

- Market signals were spread across several sources
- Charts and technical indicators required manual interpretation
- Daily and intraday forecasts took time to prepare
- Teams lacked one structured scenario view
- Commercial access required licensing, sessions and device controls

### Structured workflow

- Ingest market signals
- Compute forecasts and indicators
- Generate decision-ready intelligence
- Control commercial access
- Review structured outputs

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## 04 / SOLUTION

# How we approached it

The solution was designed as a three-layer product architecture: 1. Desktop Product Experience A desktop-first application gives users a premium analytics experience with dashboards, live indicators, forecast cards, reports, scenario panels, and structured market summaries.

**01**

### **Ingest market signals**

Bring price history, indicators, macro drivers and reports into one analytics workflow.

**02**

### **Compute forecasts and indicators**

Run scheduled forecasting, support/resistance and directional-bias calculations.

**03**

### **Generate decision-ready intelligence**

Present scenarios, tactical summaries and forecast-versus-actual reviews.

**04**

### **Control commercial access**

Manage tenants, licences, devices, sessions and subscription-ready access.

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## **05 / EXAMPLE WORKFLOW**

# **From input to reviewable output**



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## **06 / DELIVERY SCOPE**

# What the delivery covered

## Business and product workflow

- Daily And Intraday Forecasting
- Technical Indicator Snapshots
- Support And Resistance Tracking

## AI, data and automation

- Azure OpenAI
- LangGraph
- LangChain

## Application and cloud engineering

- React
- Tauri
- Python
- FastAPI
- NestJS
- PostgreSQL
- Docker

### Scope boundary

Forecasts and scenario outputs are decision-support inputs for professional users. The case study does not claim a verified accuracy rate or financial outcome.

# How the system is organised



## Forecast evaluation

Forecast-versus-actual review supports ongoing evaluation rather than presenting model output as certain.

## Role and licence controls

Tenant, device, session and licence controls protect commercial access to the desktop product.

## Decision-support boundary

The platform supports professional analysis and does not replace independent trading or financial judgement.

## 08 / BUSINESS VALUE

# Expected operational value

- 1

**Faster daily and intraday market interpretation**

Scheduled ingestion and analysis bring daily and intraday market inputs into one review workflow.

Projected
- 2

**Consolidated technical, macro and scenario signals**

Technical indicators, macro drivers and scenario outputs are consolidated in the desktop product.

Projected

- 
- 3

**Clearer decision support for professional commodity users**  
Reports and scenario views are designed to support professional interpretation rather than replace trading judgement.

Projected
- 
- 4

**Forecast-versus-actual review for ongoing evaluation**  
Forecast-versus-actual views allow teams to review model behaviour over time.

Projected
- 
- 5

**A scalable commercial platform foundation**  
Licensing, tenant, device and session controls provide a foundation for controlled commercial delivery.

Projected
- 

## 09 / TECHNOLOGY

# Technology and component roles

|    |                                                            |    |                                                                   |    |                                                           |
|----|------------------------------------------------------------|----|-------------------------------------------------------------------|----|-----------------------------------------------------------|
| AZ | <b>Azure OpenAI</b><br>Managed LLM inference and reasoning | LA | <b>LangGraph</b><br>Stateful multi-step AI workflow orchestration | LA | <b>LangChain</b><br>RAG and LLM application orchestration |
| RE | <b>React</b><br>Reviewer or product user interface         | TA | <b>Tauri</b><br>Desktop application shell                         | PY | <b>Python</b><br>AI, data-processing and backend logic    |

FA

### **FastAPI**

Backend APIs  
and workflow  
orchestration

NE

### **NestJS**

Platform,  
authentication  
and licensing  
APIs

PO

### **PostgreSQL**

Relational  
operational and  
analytics data

DO

### **Docker**

Containerised  
deployment

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## 10 / RELATED WORK

# Explore related case studies

### **FINANCIAL SERVICES & ANALYTICS**

#### **FinSight AI**

Multi-tenant bank-statement  
analysis, financial Q&A and visual  
intelligence for finance teams.

### **BUSINESS COMMUNITIES & NETWORKING**

#### **BT Universe**

A web and mobile operating system  
for founder engagement, business  
visibility and community intelligence.

### **ENTERPRISE PRODUCTIVITY**

#### **MeetSage**

AI-powered meeting capture,  
transcription, analysis, reports and  
conversational follow-up.

## Working on a similar challenge?

Discuss the workflow, data, integrations and evidence required for a practical first release.