

Performance Insights Hub

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1. Overview

The **Chelsea FC Performance Insights Hub** is a sophisticated analytical tool developed to translate complex sports performance data into clear, actionable intelligence. Designed for coaching and sports science staff, it utilizes advanced data visualization to support data-driven decision-making aimed at enhancing player performance, minimizing injury risks, and optimizing recovery strategies.

2. Objectives

- Deliver an **intuitive** and **interactive platform** for comprehensive player assessment.
- Integrate **diverse data streams** (GPS, physical tests, recovery metrics, etc.).
- Enable identification of **performance trends** and **anomalies** via multi-dimensional analysis.
- Support **evidence-based decisions**, particularly for training load management.
- Improve **communication** and **collaboration** between performance staff and coaches.

3. Technical Implementation

Framework/UI

Next.js, React components, Tailwind CSS

Data Visualization

Recharts library

Language

TypeScript

Data Handling

Custom data parsing utilities
Mock Data

4. Core Functionality



- **Load Demand** | Analyzes external physical load, player availability, training quantification, to optimize training cycles and prevent overtraining.
- **Injury History** | Tracks current and historical injury data, categorizes risk, and analyzes time loss to inform proactive injury prevention strategies.
- **Physical Development** | Monitors physical testing results, benchmarks performance, visualizes development plans, and tracks progress against individual targets.
- **Biography** | Manages player profiles, including background, positional context, and career trajectory, providing essential context for analysis.
- **Recovery** | Monitors player recovery through nutrition, sleep quality, wellness data, and adherence to protocols, enabling individualized recovery interventions.
- **External Factors** | Integrates contextual elements like environment, team dynamics, and motivation to provide a more holistic understanding of performance fluctuations.