

SkillCorner Tracking Analysis Case Study

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Focus: Applied tracking insights, client-facing communication, and analytics workflow design

Project Overview

This project demonstrates how raw basketball tracking data can be translated into clear, actionable insights that support coaching, scouting, and high-performance decision-making.

Using a simulated possession dataset modeled after modern positional-tracking structures, the analysis shows how movement patterns, tempo, directional changes, and spacing can be turned into interpretable information for non-technical audiences.

The workflow mirrors real SkillCorner use cases: ingesting tracking data, engineering meaningful metrics, layering basketball context, and communicating results in a concise, client-ready format.

Methods & Tools **Languages:** Python (Pandas, NumPy, Matplotlib, Seaborn)

Workflow:

- Data cleaning and preprocessing
- Creation of derived metrics (speed, acceleration, COD load, separation)
- Advantage mapping
- Court-overlaid trajectory visualizations
- Player profile radar chart

Client-facing focus:

All visualizations and definitions were designed for clarity so coaches, analysts, and performance staff can quickly interpret player tendencies.

Key Insights

- The guard generated their highest speeds when attacking downhill from slot and wing entries.
 - Frequent touches around the nail and slot indicate comfort initiating offense and operating out of ball-screen actions.
 - Acceleration and direction-change loads were highest during east-west attacks rather than straight-line drives.
 - Advantage states tended to increase early in the possession, suggesting tempo is a meaningful component of this player's ability to create separation.
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Relevance to SkillCorner: This project demonstrates the ability to:

- Work hands-on with tracking data and derive meaningful metrics
 - Communicate insights with clarity for coaches and non-technical audiences
 - Build visual tools that support decision-making and client onboarding
 - Understand basketball spacing, timing, and movement context
 - Collaborate across departments by translating data into actionable narratives
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