



AI in Formula One.

Exploring Use Cases For

Strategy Engineers

This content is an independent discussion of AI in motorsports engineering and is not affiliated with Formula One, FIA, or any specific team.

Optimising Race Execution & Scenario Planning

Why It Matters

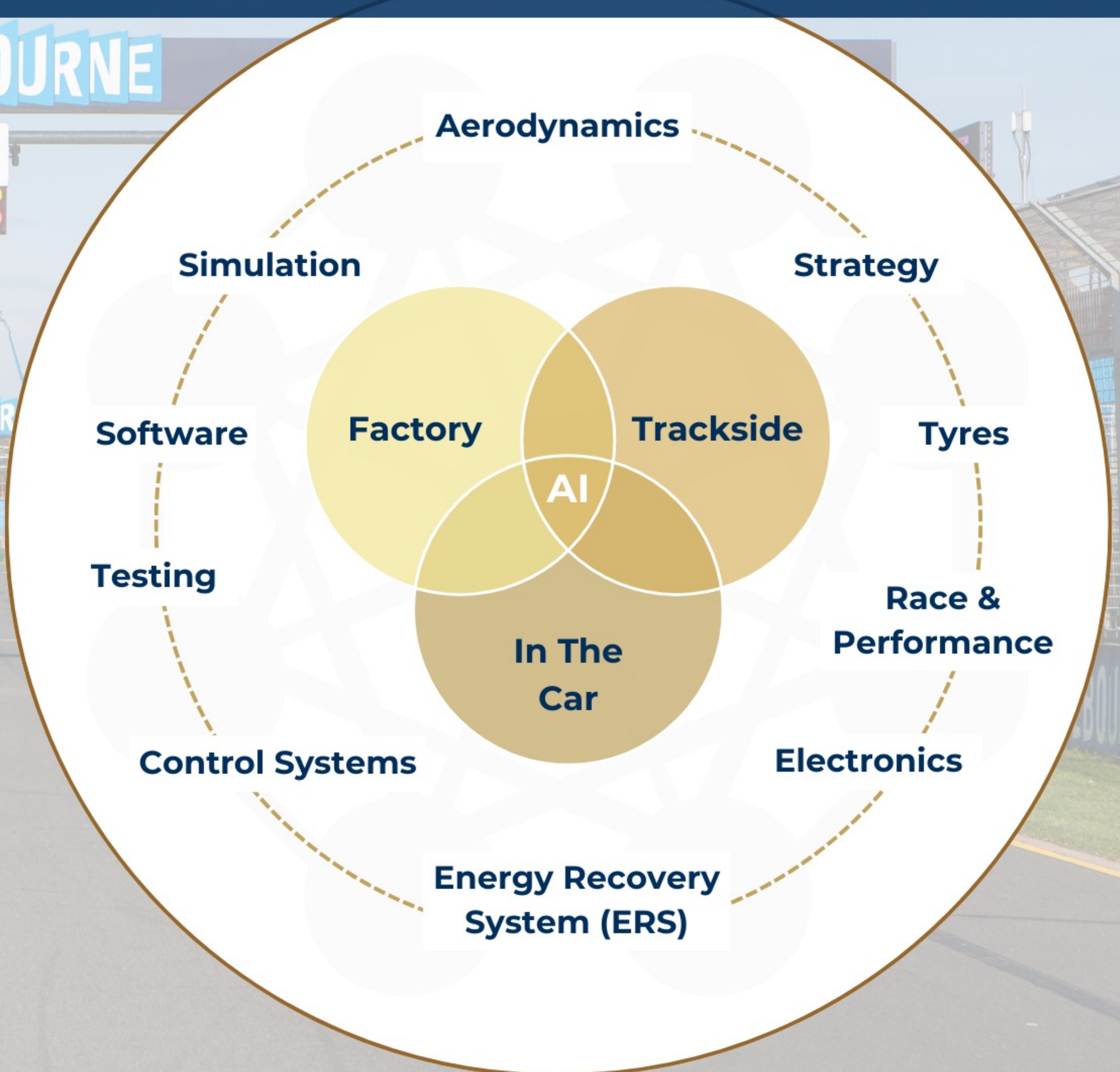
Formula One race strategy depends on hundreds of interconnected variables, from tyre degradation to safety cars and competitor tactics.

AI enables engineers to process vast amounts of real-time data to refine race strategy dynamically.

AI-based Engineering Technology

- ✓ Predicts the optimal pit stop timing based on evolving race conditions.
- ✓ Simulates multiple strategy outcomes to determine the best approach.
- ✓ Calculates overtaking probability by assessing traffic, ERS deployment, and competitor behaviour.

The Future of Racing: Streamlined with AI.



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Potential Applications for Strategy Engineers

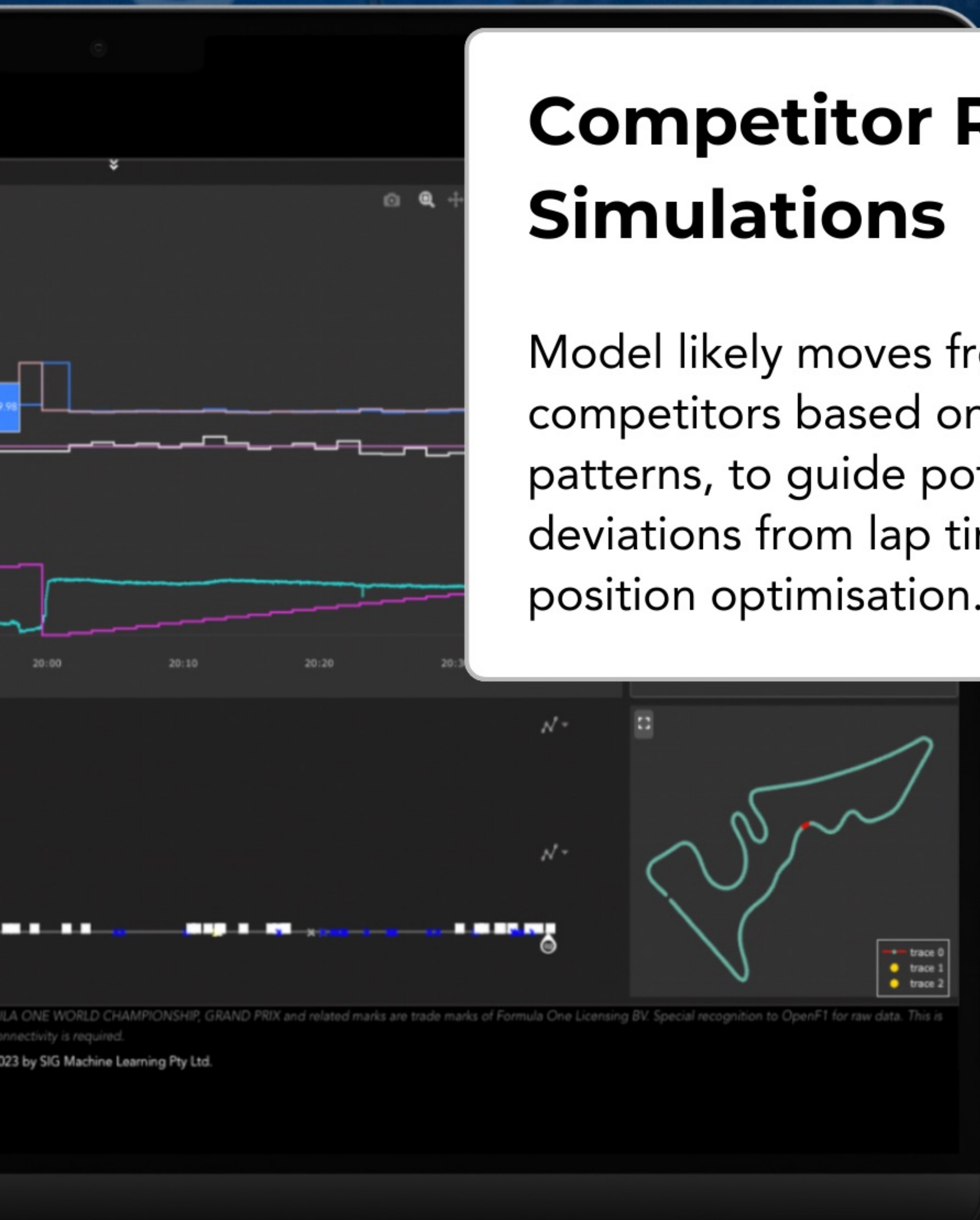


AI-Driven Pit Stop Models

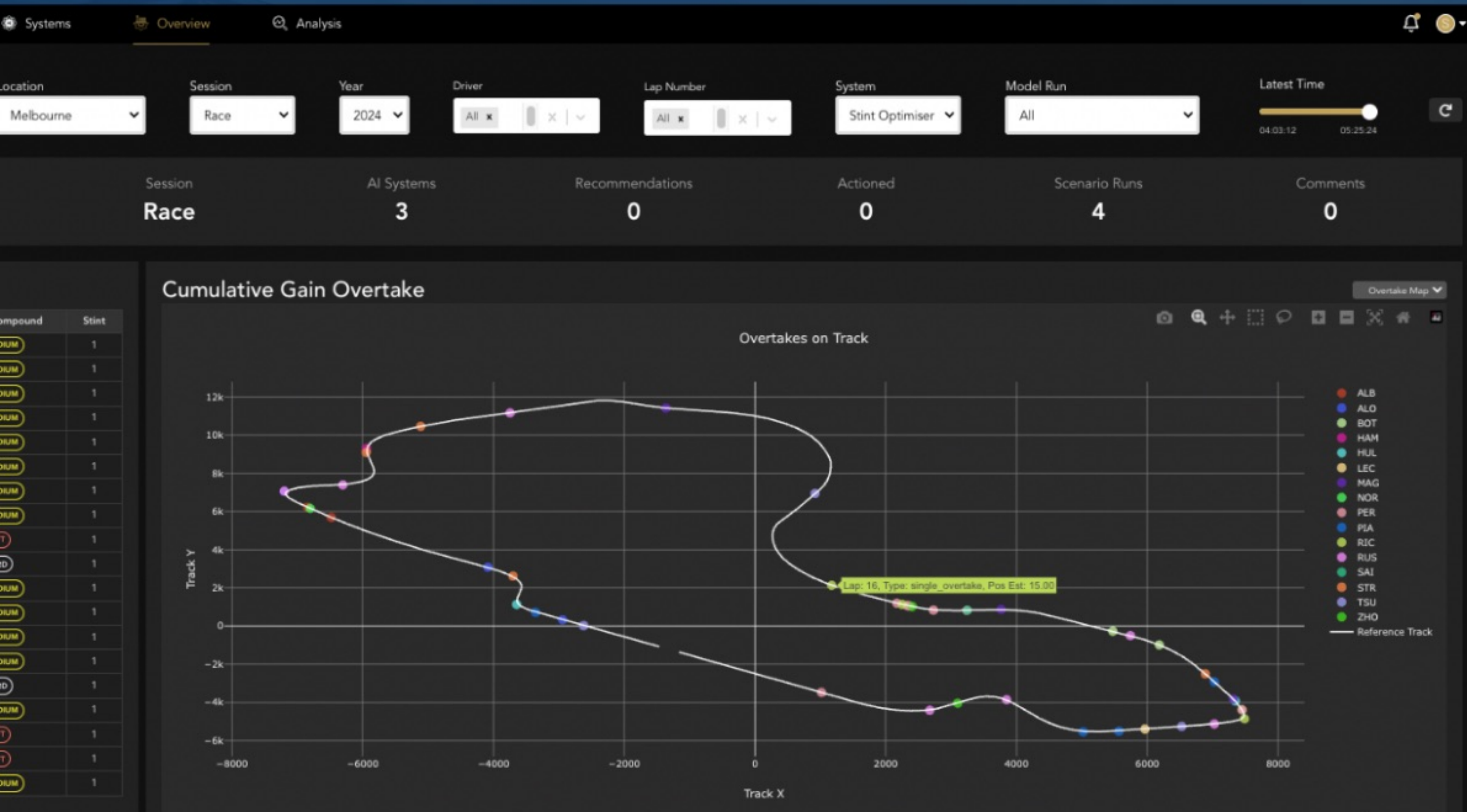
Predict the impact of different pit stop strategies on race outcomes, accounting for dynamic environment (track evolution), competitor behaviour (e.g. Undercuts), and events (Safety Car, Virtual Safety Car).

Competitor Race Simulations

Model likely moves from competitors based on historical patterns, to guide potential deviations from lap time to position optimisation.



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Overtaking Strategy Modelling

Predict the best opportunities for overtaking based on power deployment and track position.

AI isn't replacing expertise - it's enhancing it.

To discuss one or more of these
AI use cases, contact us today.



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AI in Formula One Guide
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