RacerIQ Project Mockup

Slide 1: Welcome & Upload Prompt

Welcome to RacerIQ - Your Personal AI Racing Coach.

RacerIQ is designed to help sim racers improve their lap times using AI feedback.

Start by uploading your recorded lap video. The system will analyze your performance compared to a professional baseline.

Track Focus: Austrian GP in Assetto Corsa Competizione (ACC).

Upload Panel:

- Upload your driving video file (MP4 format preferred).

- Optional: Select track (default is Austrian GP; future support planned for Nürburgring).

Once uploaded, choose how you'd like to receive your feedback:- Option A: Side-by-side video comparison.

- Option B: Sector-based interactive feedback map.

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Slide 2: Side-by-Side Video Comparison View

View your uploaded lap alongside a professional baseline lap.

Video Playback Features:

- Left: Your driving footage.

- Right: Baseline lap (20% opacity overlay optional).

- Synchronized playback for direct comparison.

Telemetry Analysis:

- Overlay data: throttle, brake pressure, steering angle, speed.

- Graphs comparing telemetry input across different corners.

Sector Breakdown Table:

- Each lap sector (S1, S2, S3) is color-coded:

  * Green = faster than baseline.

  * Yellow = slower than baseline.

AI Coach Summary Panel:

- Natural language feedback detailing missed apexes, braking inconsistencies, poor throttle timing, etc.

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Slide 3: Interactive Track Sector View

Color-coded map view of the track with sector-specific performance feedback.

Track Map Features:

- S1, S2, S3 sectors identified.

- Colors indicate performance against baseline:

  * Green = faster.

  * Yellow = slower.

Click on a sector to view:

- Replay snippet of that sector.

- Telemetry overlay for the selected sector.

- AI-generated suggestions for improvement (e.g. brake earlier, maintain tighter line).

Ideal for racers who want deep analysis of specific track areas.

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Slide 4: Audio Feedback (Text-to-Speech Coach)

This step offers verbal coaching using text-to-speech synthesis.

Features:

- Hear real-time feedback like a racing engineer in your headset.

- Feedback tailored to your driving errors and improvements needed.

Example:

"Approach Turn 4 with 15% less throttle and trail brake to maintain grip."

Future Option: Integrate with simulator live coaching during race sessions.

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Slide 5: Optional Track Selection (Future Extension)

While RacerIQ is currently focused on the Austrian GP, additional tracks are being considered.

Planned tracks for future updates:

- Nürburgring

- Monza

- Spa-Francorchamps

Track Selection Menu:

- Users can switch tracks and re-upload laps for targeted feedback.

Note: Each track will require a curated baseline lap and AI calibration.

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