3AM Project Report

What the project does:

This project is a web application designed for the analysis of Formula 1 racing data. It allows users to select specific race sessions and laps for detailed telemetry visualization. The application provides interactive plots for various telemetry channels such as speed, RPM, gear, throttle, and braking.

By comparing telemetry data from different laps, a user can gain valuable insights into driver performance and car setup. For example:

Braking and Throttle Application: One can analyze braking points to see if a driver is braking later or earlier into a corner, and how smoothly they apply the throttle on corner exit. This can reveal differences in driving style and confidence.

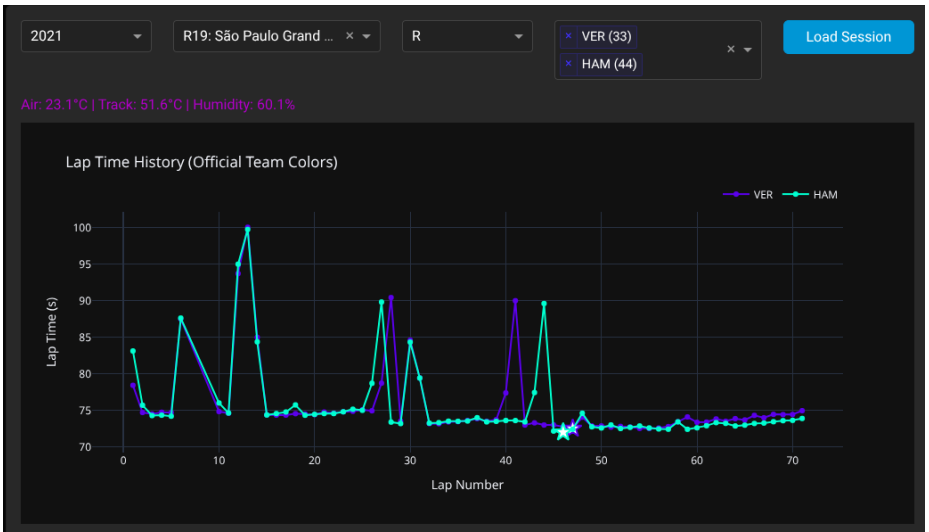
Gear Shifting: Comparing gear shift points can show how a driver is using the engine's power band and whether they are shifting at the optimal RPM for maximum acceleration.

Cornering Speed: By looking at the speed trace through a corner, one can identify which driver carries more speed through the apex, indicating better car balance or a better racing line.

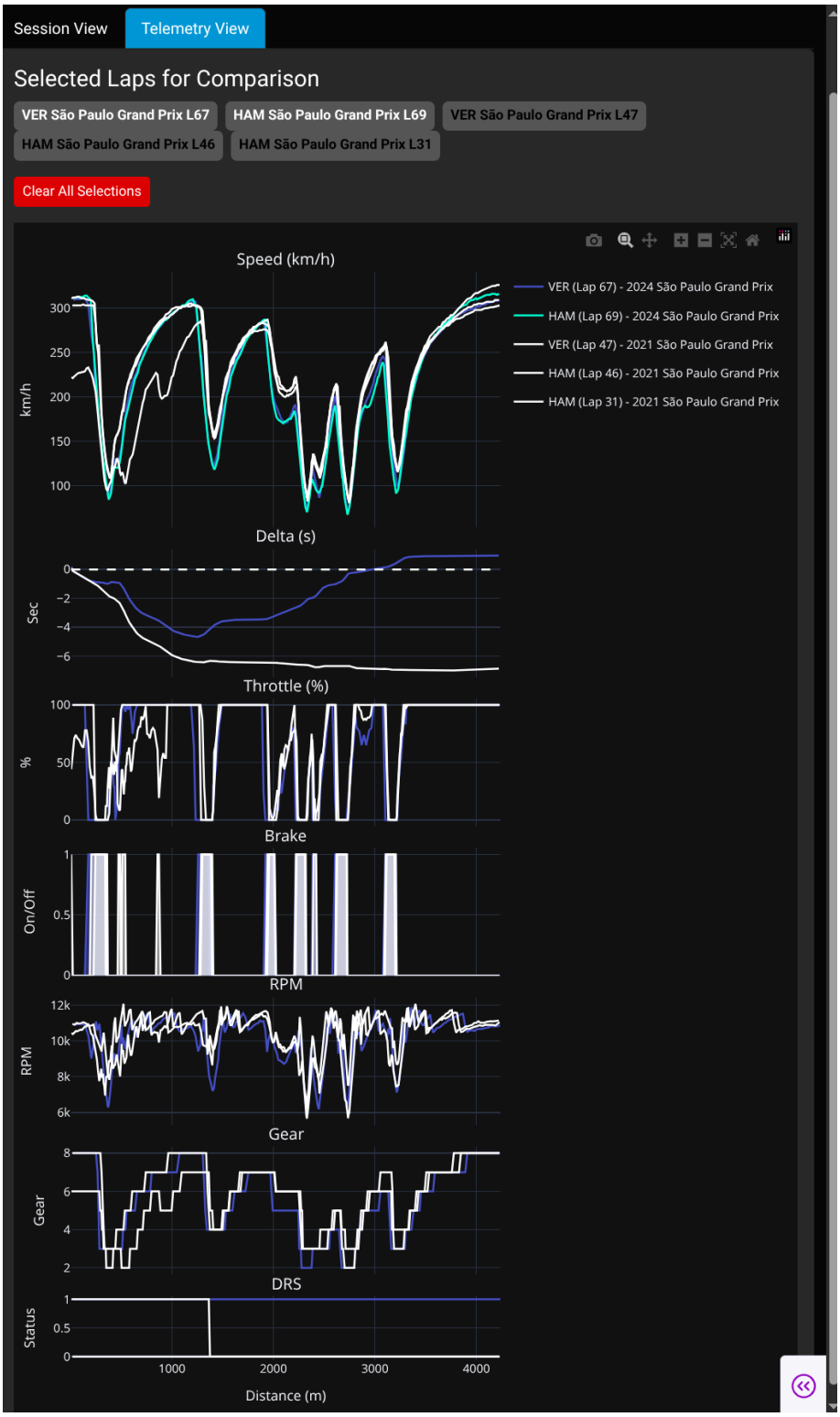
Consistency: Comparing multiple laps from the same driver can show their consistency in hitting braking points, apexes, and acceleration zones.

This detailed level of comparison enables a deeper understanding of race craft and what makes a lap fast.

Session View:



Lap Details (Click cell to Select | Purple = Session Best | Green = Personal Best)

Lap	VER	HAM
1	1:18.399 (M)	1:23.099 (M)
2	1:14.680 (M)	1:15.675 (M)
3	1:14.471 (M)	1:14.254 (M)
4	1:14.713 (M)	1:14.307 (M)
5	1:14.660 (M)	1:14.172 (M)
6	1:27.488 (M)	1:27.601 (M)
7	1:59.850 (M)	1:59.617 (M)
8	2:13.610 (M)	2:11.737 (M)
9	2:29.633 (M)	2:27.627 (M)
10	1:14.805 (M)	1:15.980 (M)
11	1:14.577 (M)	1:14.607 (M)
12	1:33.704 (M)	1:34.983 (M)
13	1:40.040 (M)	1:39.738 (M)
14	1:24.966 (M)	1:24.357 (M)
15	1:14.364 (M)	1:14.337 (M)
16	1:14.314 (M)	1:14.534 (M)
17	1:14.324 (M)	1:14.747 (M)
18	1:14.516 (M)	1:15.716 (M)
19	1:14.468 (M)	1:14.300 (M)
20	1:14.383 (M)	1:14.424 (M)
21	1:14.744 (M)	1:14.533 (M)
22	1:14.580 (M)	1:14.531 (M)
23	1:14.774 (M)	1:14.775 (M)
24	1:14.842 (M)	1:15.124 (M)
25	1:15.061 (M)	1:14.976 (M)
26	1:14.911 (M)	1:18.676 (M)
27	1:18.696 (M)	1:29.802 (H)
28	1:30.413 (H)	1:13.364 (H)
29	1:13.501 (H)	1:13.162 (H)
30	1:24.575 (H)	1:24.312 (H)
31	1:19.408 (H)	1:19.397 (H)
32	1:13.155 (H)	1:13.225 (H)
33	1:13.140 (H)	1:13.291 (H)
34	1:13.391 (H)	1:13.491 (H)
35	1:13.434 (H)	1:13.470 (H)

Telemetry View: