

FORMULA 1 MEDIA DYNAMICS: UNCOVERING WHAT DRIVES BROADCAST COVERAGE

Client-Facing Analytics to Decode Regional, Temporal, and Sponsor-Level Patterns in Global F1 Exposure

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I, the undersigned, Seneca Miller, candidate for the MSc degree in Business Analytics declare herewith that the present thesis titled “*Formula 1 Media Dynamics: Uncovering What Drives Broadcast Data – Client-Facing Analytics to Decode Regional, Temporal, and Sponsor-Level Patterns in Global F1 Exposure*” is exclusively my own work, based on my research and only such external information as properly credited in notes and bibliography. I declare that no unidentified and illegitimate use was made of the work of others, and no part of the thesis infringes on any person’s or institution’s copyright. I also declare that no part of the thesis has been submitted in this form to any other institution of higher education for an academic degree.

Vienna, 09 June 2025

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PROJECT SUMMARY

This project developed a scalable, cross-platform analytics pipeline to measure sponsor visibility in both broadcast and social media content. Conducted in partnership with eMedia Monitor (eMM), the initiative was designed as a strategic showcase to demonstrate how the company's media monitoring infrastructure can be extended into high-impact analytics.

Formula 1 was selected as the test case due to its extensive global reach, media saturation, and brand-heavy ecosystem. The project integrated unstructured social media content from TikTok, Instagram, and Twitter (retrieved via the Vetric API), official race metadata (via the Jolpica API), and video segments from broadcast channels. A key innovation was the development of a Python-based script that aligned each post or clip to the appropriate Formula 1 race using timestamp proximity and contextual metadata. This enabled structured analysis by geography, platform, and race characteristics—such as prime-time status or legacy vs. new circuits.

The social media analysis component encompassed over 10,000 posts and revealed that media responsiveness and engagement levels were significantly higher for newer races, particularly in the Gulf and Americas. These races were more likely to overlap with evening prime-time slots, generating timely and clustered content, especially on video-heavy platforms like TikTok. Text-based sponsor mentions were generally sparse, reinforcing the need for visual methods to capture full brand exposure.

To address this gap, a custom object detection model was trained using the YOLOv8 architecture. The model was iteratively refined and validated on broadcast race footage to detect 18 key sponsor logos. While performance varied by class, the final model achieved strong precision and demonstrated the viability of automated logo tracking in real-world media. The project also contributed to enhancements in eMM's internal tooling—informing UX improvements and prompting the addition of new analyst-facing features in the Alpha broadcast platform.

Beyond the technical implementation, the project highlighted meaningful time and cost savings through automation. Data collection scripts reduced analyst workload by over 90% and enabled consistent, reusable reporting formats across platforms. The pipeline was designed with modularity in mind, allowing it to scale across other domains such as sports, branded entertainment, or political coverage.

In summary, this project produced a functioning prototype for automated, event-aligned media analytics. It illustrates how eMM can transition from passive media tracking to delivering structured insights that support sponsor valuation, campaign evaluation, and regional media strategy. The results are not only technically robust, but also business-aligned—laying the foundation for future productization and client-facing dashboard development.