F1Impact: Formula One Driver' Charity Initiatives

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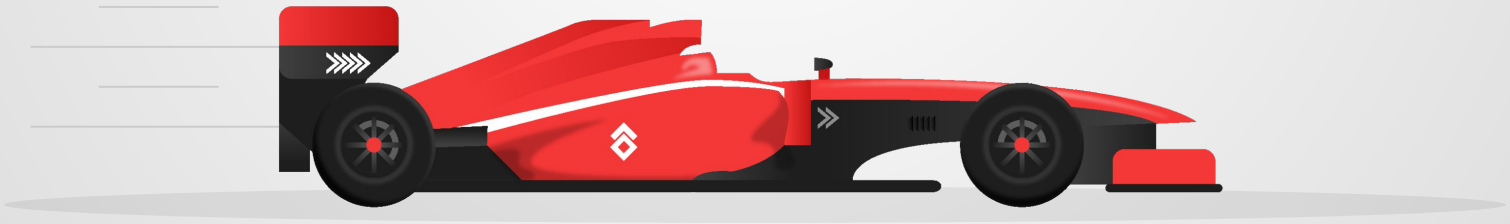
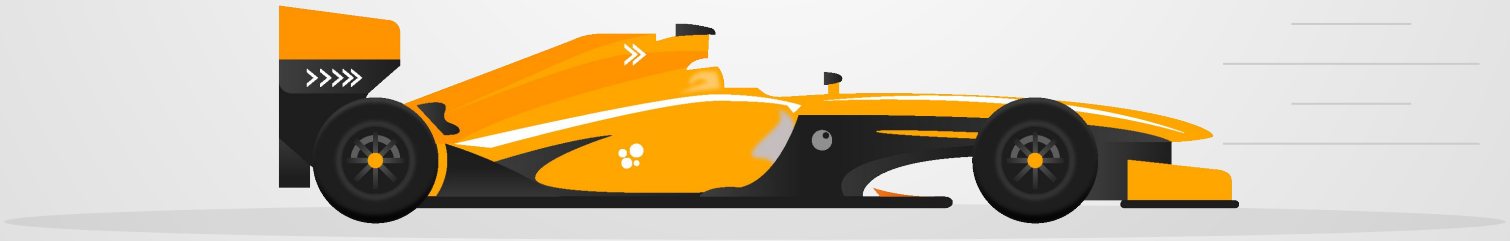


Overview

F1Impact is an information product designed and built in the context of IMT 542: Data Portability at the University of Washington. The project transforms fragmented and difficult-to-access information about Formula One drivers' charitable initiatives into a centralized, structured, and portable API-driven knowledge platform.

The system is designed for researchers, fans, journalists, and partner organizations to access and understand the social impact of individual F1 drivers through their philanthropic foundations and charitable partnerships.



Motivation & Use Case

Despite growing global interest in athlete-driven philanthropy, there is no unified platform where Formula One driver charity efforts are accessible in a structured, analyzable form. This creates lost opportunities for:

- Fans seeking meaningful ways to engage with drivers' causes
- Journalists and analysts hoping to quantify impact
- Charities wanting visibility across digital ecosystems

F1Impact addresses this gap by offering a **RESTful API** and data schema that enables external reuse, human-readable visualization, and API-based integration with third-party apps, dashboards, and reports.

Information Story

Currently, information in this field is very fragmented and difficult to find for many fans wanting to get involved with the field. Therefore, I took it upon myself to restructure and unify F1 driver charitable activity data (from press releases, team sites, interviews) into a **clean, query format**. The resulting API provides:

- Access to 23+ unique charitable initiatives
- Filtering by driver, team, year established, and focus area
- Estimated financial impact and key initiatives
- Portable formats (CSV, JSON) and developer-friendly endpoints

Stakeholders can now search, analyze, or embed charitable impact data across digital platforms.

FAIR Assessment Items

- **Findable** (F1 & F2): Each initiative will be assigned with a unique persistent identifier and enriched with plurality
- **Interoperable** (I1 & I3): Implementing standardized taxonomies regarding the initiatives involved, as well as any other qualified references related to resources in the solution to create a network of proper contextual information
- **Reusable** (R1 & R1.2): Ensuring detailed operational information, including licensing information as well as a progress tracking system, allowing users to assess data quality presented to make financial and impact focused claims

This structure ensures the long-term utility and portability of our dataset across research, education, and fan engagement contexts.

New Structure & Improvements

Existing Deficiencies:

- Info was scattered across sites with inconsistent naming
- No API access or bulk export options
- No relationship mapping between drivers, teams, and causes

New Structure:

- `driver_name`, `team_2024`, `foundation_charity_name`
- `year_established`, `focus_areas`, `key_initiatives`
- `estimated_annual_impact`, `website`
- Accessible via endpoints like `/drivers`, `/teams`, `/charities/search`

Improvements:

- Normalized field naming
- Advanced keyword searching
- Created a portable JSON schema for reuse

Quality, Security, & Performance

Full Test Plan (‘test_plan.md’) including:

- Functional tests for each API route
- Performance tests using `k6` and `requests`
- Monitoring guidance (e.g., Flask logs, uptime alarms)
- Role-based access control design (proposed)
- GitHub Actions support for CI testing and schema validation

Information Portability

Portability is embedded in:

- JSON schema with field-level consistency
- Export options (JSON, CSV)
- API-first design with REST endpoints
- Open-access documentation and developer support

Data can be ingested by external apps or visualized via BI tools like Tableau or Google Data Studio.

THANKS

DO YOU HAVE ANY QUESTIONS?