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Business Domain

Software

Project Type

Data processing

Geofencing of 5 Billion Sq Ft for an International SaaS Developer to Create a Database of Retail Venues in the UK, US, Russia, Germany and Sweden

Client

Gyana is an award-winning Big Data and AI company, which is known for developing innovative SaaS products for the retail, finance, and real estate sector.

Project

Geofencing of stores, shopping centers, and other retail clusters to compose a database of geographical locations in Sweden, UK, the USA, Russia, and Germany.

Objective

Geofencing of retail venues and areas, i.e., to mark their boundaries on a map and to determine their attributes for the Client to launch a new solution for its end-users.

Team Reinforcement

The Client needed resources for geofencing, development and scaling of a database.

Challenge

Gyana is an international company with a specialty in AI and Big Data. It develops innovative SaaS products for the retail, finance, and real estate sector worldwide.

Competitive product development requires the creation of an object database with great coverage and a high accuracy of polygon boundaries and locations.

Geofences had to be utterly precise, which could not be achieved automatically and required manual work and an analytical approach. The process was time-consuming and required special expertise in the field of data processing.

Quick Facts

- ✓ 2 years of continuous cooperation
- ✓ Over 5BN sq ft were geofenced in 5 countries
- ✓ Different objects types were analyzed with the same high-level accuracy

Technologies

SQLite/Spatialite / PostgreSQL/PostGIS / Python / BeautifulSoup

Solution

★ 01

The Client provided its customers with data and analytics on human mobility within the requested territory.

★ 02

The Intetics team shared the collected information and combined it with GPS smartphone location data, a Wi-Fi hotspot and telecom data.

★ 03

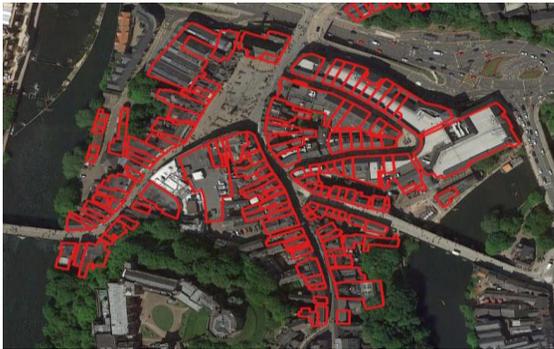
The input data were very limited. Various sources were used to obtain it. The Intetics team collected different types of information (photos, panoramic views, plans, etc.) to create correct geofences.

★ 04

Data of different formats and types were combined into a single composite to deliver the best result.

★ 05

Geofencing of indoor and outdoor assets, retail units or retail clusters (neighborhoods, streets, airports, hospitals) was done using Intetics approach, which allowed the team to work on different objects types and deliver high-level accuracy.



Benefits and Results

- ★ Using the information shared by the Intetics team in combination with GPS smartphone location data, Wi-Fi hotspot and telecom data, the Client provided its customers with data and analytics on human mobility within the requested territory.
- ★ The product, developed over the course of 2 years in collaboration with Intetics, brought many honors to the Client and was successfully delivered to the end users.
- ★ During the project, an implementation area over 5BN sq ft was geofenced on the territories of the UK, the US, Russia, Germany, and Sweden.
- ★ The geofencing and data quality control, performed by Intetics, met all Client's expectations and requirements. After a year Intetics continues providing similar services with a team of twice the size, to a new client who was recommended to cooperate with Intetics team by Gyana.

Techstack:

SQLite/SpatialLite, PostgreSQL/PostGIS,
Python, BeautifulSoup

Team: 5

1 Project Manager,
1 GeoData Analyst,
1 Software Engineer,
2 Geodata Technicians