Pulse Path

Bongo Bozos | Sep 29, 2024

Overview

What's at risk

Time is of the essence when providing emergency medical care. Sadly, ambulances are frequently delayed in responding to critical accidents, which results in **avoidable fatalities**. Numerous lives are impacted by this important issue, which highlights a serious weakness in the public sector's capacity to respond.

What we ask for

We offer a system based on four important data points (hospital locations, patient locations, real-time ambulance locations, and historical accident data) that might potentially save **millions of lives per year.** Since no personal patient data is needed, privacy is not a concern, albeit prioritization based on severity is an option. Since all models are internally performed on Wolfram One, no data is lost from the system, which makes **integration easy for cities.**

What we built

Using geographic libraries and TimeTravel from Wolfram One, we have developed an **advanced patient prediction model to forecast ambulance demands** based on historical and real-time data. Adjustable weights are included in the model for external inputs such as news and crises. We've developed a really effective method by combining these potent Wolfram tools.

How will this help?

This system will dramatically improve ambulance response times by predicting demand and positioning ambulances in advance, using real-time and historical data. This technology can reduce **mortality rates**, **optimize resources** and therefore **reduce cost** and **increase public trust in emergency services.**
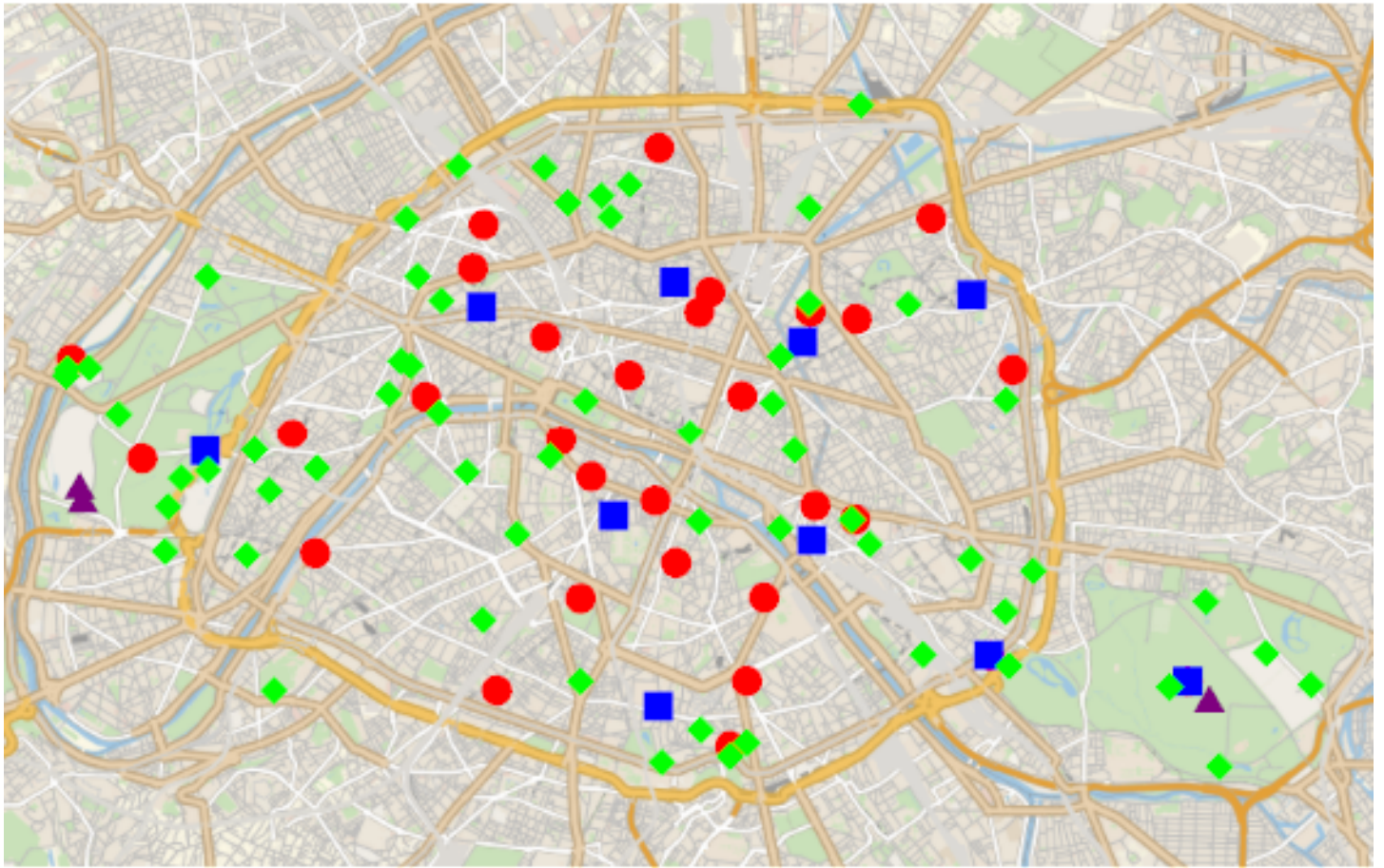
Examples

Situation A

Ambulance services in Paris are inefficient, causing overcrowding in some areas and slow response times in others.
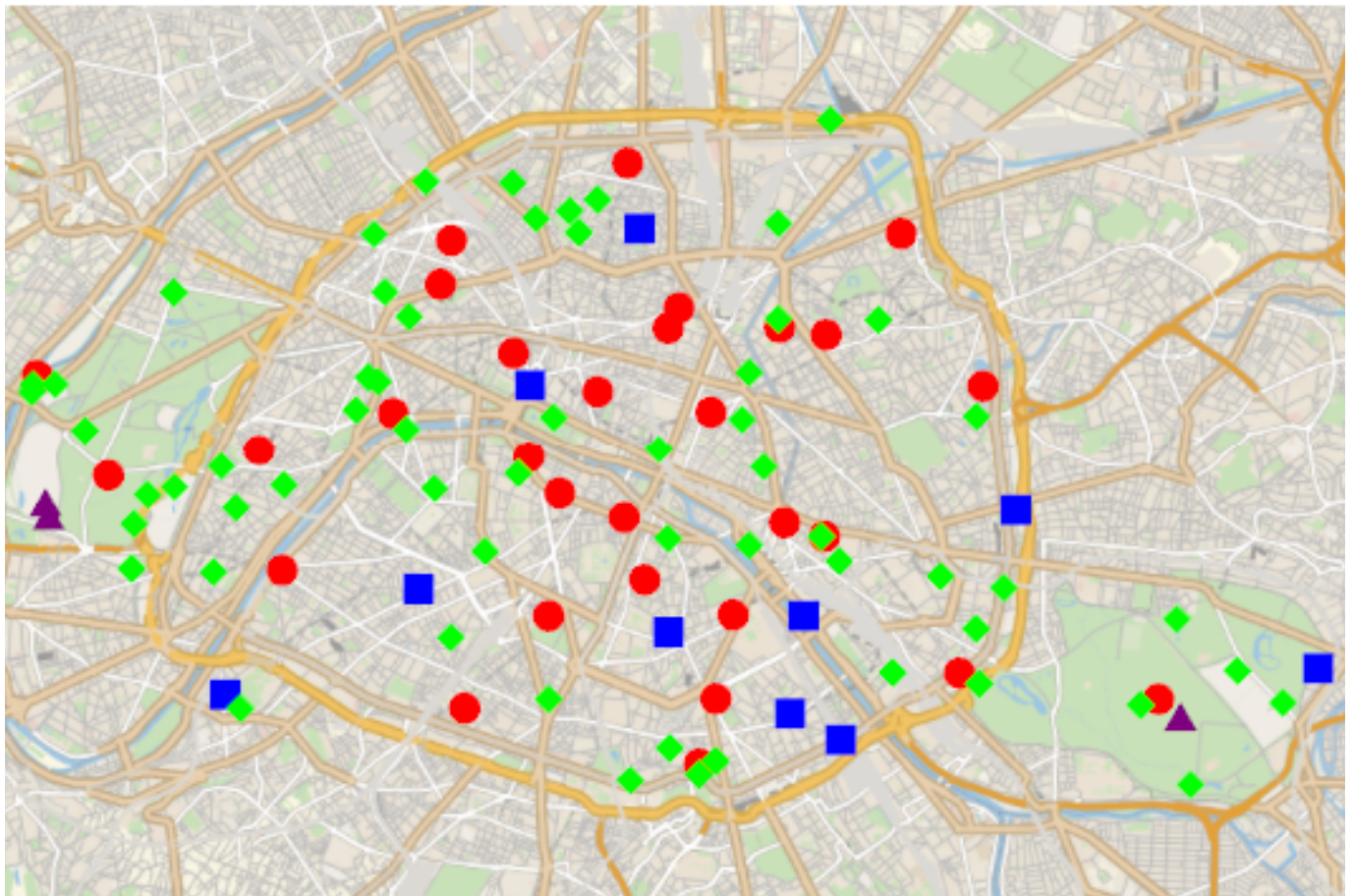
Optimized ambulance services in Paris ensure swift response times throughout the city.
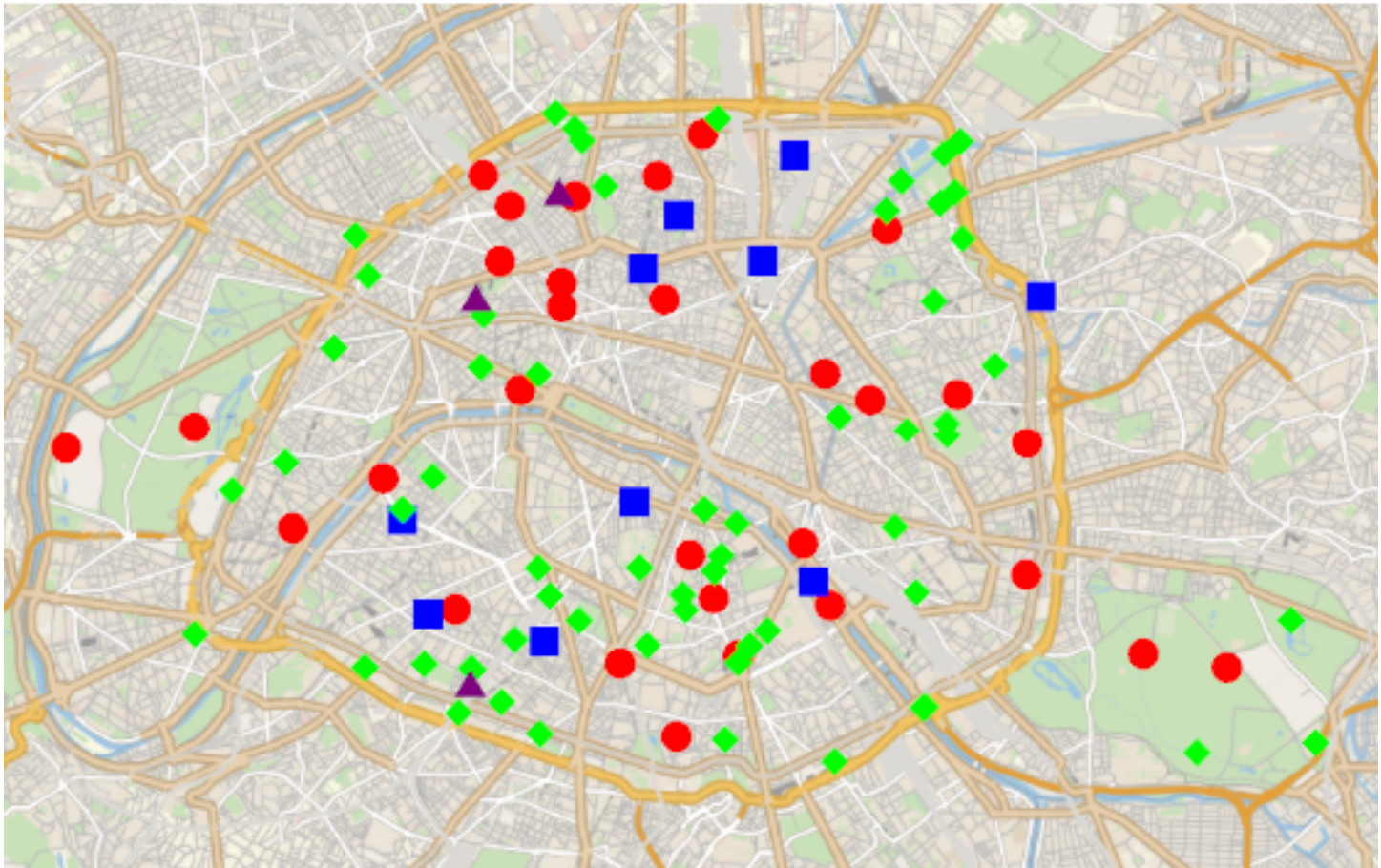
Patients (Red)
Ambulances (Blue)
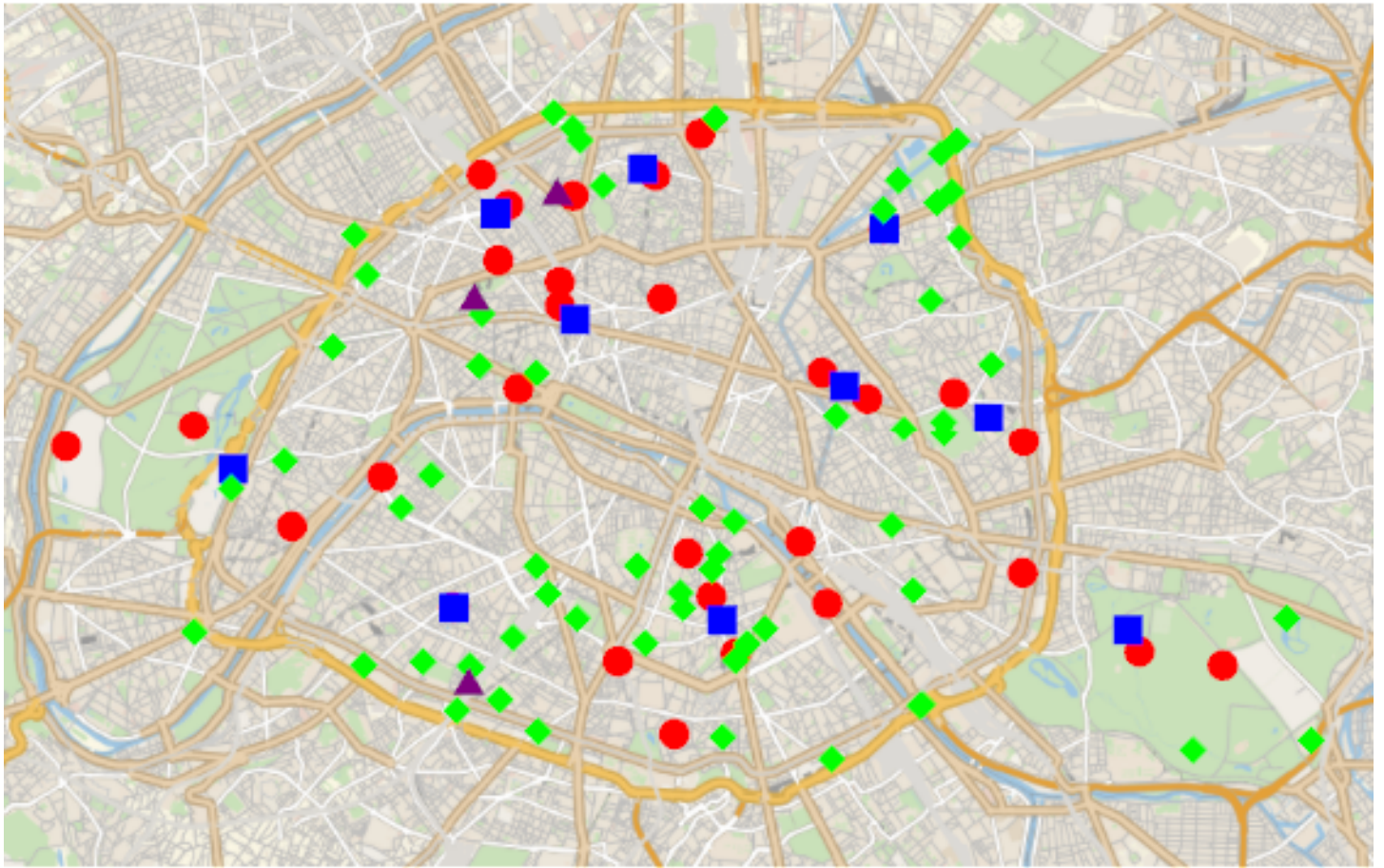Previous Accidents (Green)
Hospitals (Purple)

Situation B

Overcrowding in hospitals and ambulances in the west is resulting in inadequate emergency response in the east.

Patients (Red)
Ambulances (Blue)
Previous Accidents (Green)
Hospitals (Purple)

Despite suboptimal hospital locations, ambulances effectively cover major neighborhoods.

Patients (Red)
Ambulances (Blue)
Previous Accidents (Green)
Hospitals (Purple)