

The background of the image is a dark blue heatmap with various irregular shapes in shades of yellow, orange, and red, representing temperature variations. The text is centered over this background.

FORTYGUARD

AI-driven Temperature Intelligence for Cooler Cities

FortyGuard is on a mission to cool down cities

AI-Driven Temperature Intelligence: Precise, Fast, Affordable. Our open-source mapping offers accessible urban heat data for all, while our advanced dashboard and API services deliver comprehensive temperature intelligence for B2B and enterprises—unlocking powerful insights and capabilities tailored to your needs.

3.5 billion people live in hot climates

Urban heat (**measured at 2 meters above ground**) can be 10-15°C higher than temperatures in nearby areas just a few kilometers away, even within the same hour.

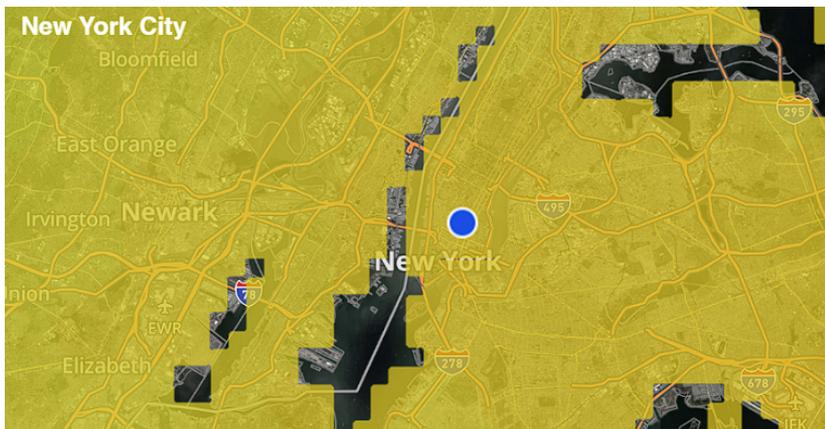
4.97 billion people worldwide were exposed to extreme heat between June 16-24, 2024.

Understanding The Problem

Urban Heat (2-meters from the ground)

- Urban heat can go higher by 10-15°C compared to surrounding areas. It's affecting your operations, site, battery, workers, energy consumption and properties value
- Your city is 0.00-something responsible for global warming, but you are 100% responsible for the increase in urban heat at your operations
- There is no software to map and quantify urban heat over an extended period of time, no data, no machine learning analytics for it, and urban heat is NOT weather data you get in the news

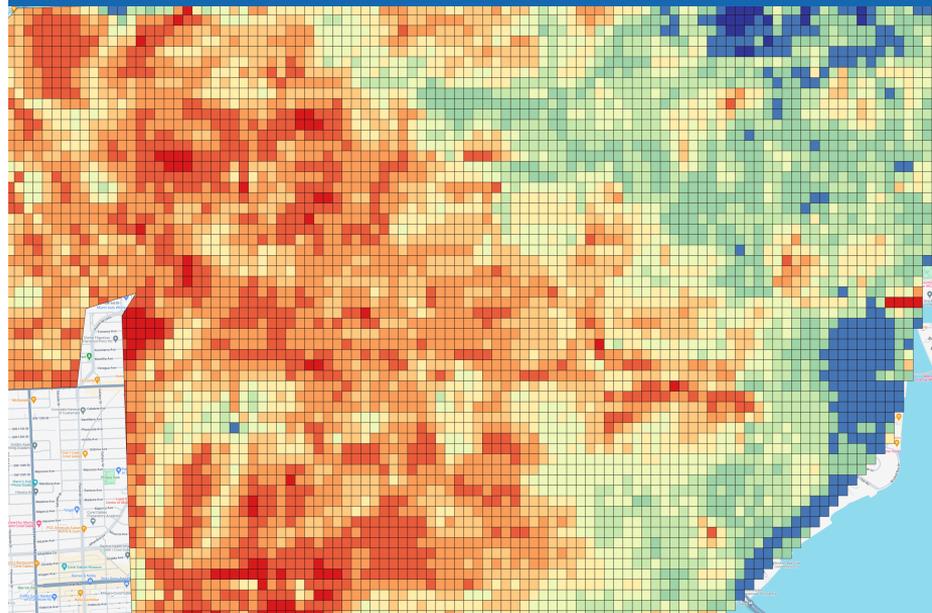
There are no outdoor granular temperatures at **scale**



Competition

is expensive, high-level, hardware cost

FORTYGUARD



FortyGuard

300x accurate, 100x cheaper, cloud stream

The Solution Is Here

A 100 times Cheaper Alternative
annually \$4,800 *vs.* \$300,000

300 times Greater Accuracy

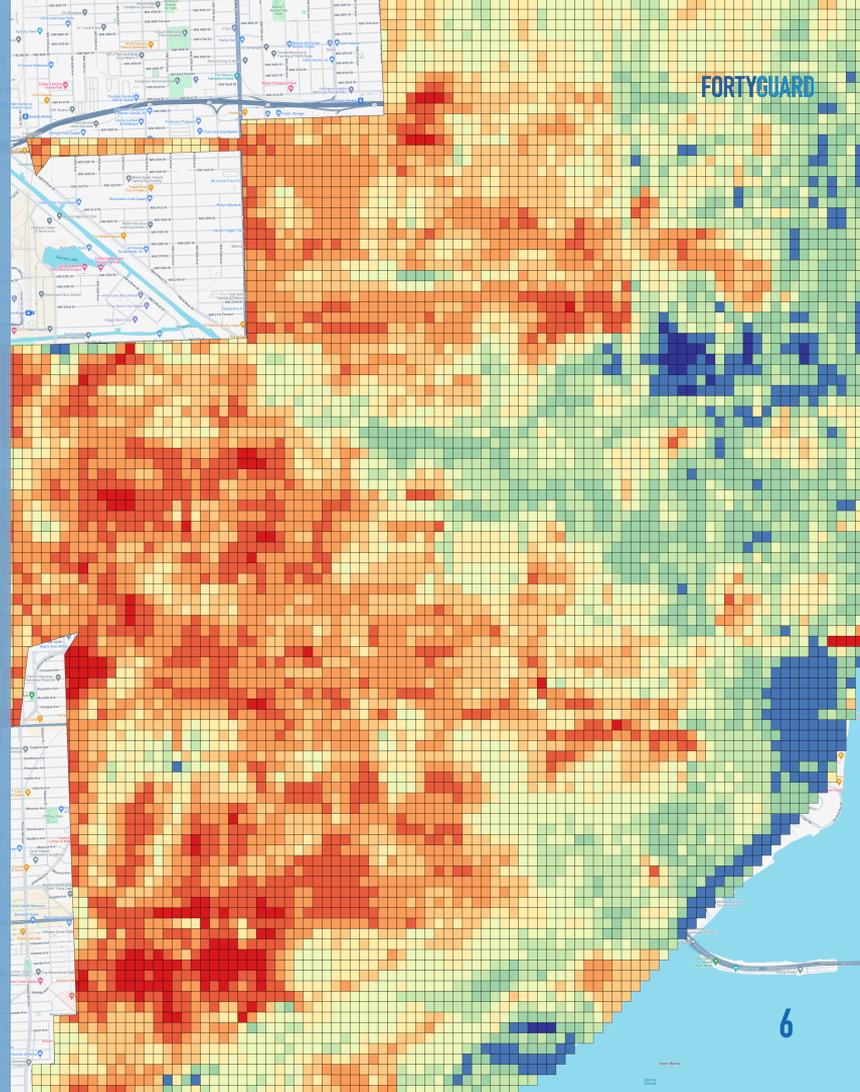
10 m² *vs.* 30 km²

Up to 15°C difference only a few kms apart

A 100% cloud solution

No hardware & 1-minute updates
vs. hardware & 4-hours updates

The Future of Temperature Intelligence begins with Data



Experience the world's first temperature technology

“tOS” Temperature Operating System

A comprehensive and integrated system that leverages AI to advance urban temperature analysis, facilitating interaction across various applications. It's a scalable and transformative approach to temperature management and analysis, providing a platform for various temperature-related applications and uses.

“LTMs” Large Temperature Models

Our proprietary LTMs deliver advanced, comprehensive insights into urban heat dynamics with speed and accuracy. Our team spent 3 years designing our models with a variety of quality data sources, to excel in predicting temperature patterns on a grand scale, and offer intricate and extensive data analysis with detailed temperature dynamics insights.

Temperature Dashboard®

Our flagship & killer product, built by clients feedback and paid services

- Allows **urban planners, engineers, and city managers** to map localities (from an entire state to one district) with a granularity of 10 m² and 40 years of historical data **anywhere across the US**
- Delivers bespoke data visualizations and analysis, along with **AI-powered predictive insights**
- Automatically identifies factors contributing to urban heat with **actionable recommendations**
- Offers different viewing modes, including satellite view and a **360° digital** street view for frame-by-frame **segmentation analysis**
- Intuitive and **easy to use**, even for those with no prior technical knowledge



Temperature Mapping X

① — ② — ③

Create Polygon

Enter a location

Clear Polygon Upload Polygon

Time Frame

Single hour Single day Range of hours

Clear Filters Generate Map

Size Estimate

Measurement Unit: **mi** km

Area of polygon: 44.08 mi²

Perimeter: 27.64 mi

Map Satellite

El Portal keyboard shortcuts Map data ©2025 Google Terms Report a map error

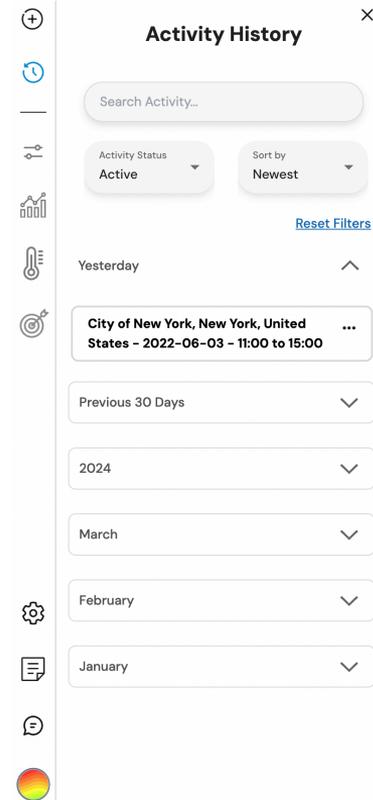
Dashboard Functions (1/5)

- **Temperature Mapping:** Dynamic visualization based on location, date, time, and tile size to identify temperature zones and trends.
- **Customizable Heatmaps:**
 - Choose specific time frames.
 - Set granularity with tile sizes (100m, 80m, 60m).
- **Area Selection:** Upload, draw, or auto-generate polygons for targeted heatmap visualization.
- **Street View:** Clicking anywhere on the map gives users the ability to go into street view.

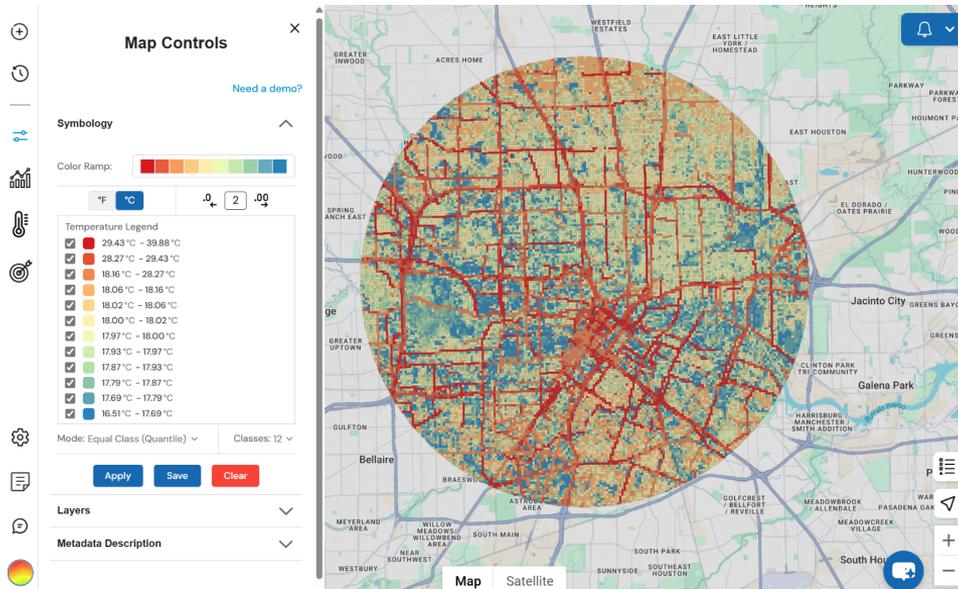
The screenshot shows a 'Temperature Mapping' panel with a close button (X) in the top right. Below the title is a progress indicator with three numbered steps (1, 2, 3) and a 'Need a demo?' link. The main section is titled 'Create Polygon' and features an input field labeled 'Enter a location'. Below this are three buttons: a location pin, a refresh icon, and a download icon. A 'Location Inputs' section contains three fields: 'City Name' (with example 'New York'), 'Coordinates' (with example '38.919640, -77.033118'), and 'Address' (with example '333 W San Carlos St San Jose, CA'). At the bottom of this section are 'Clear Filters' and 'Generate Map' buttons. A 'Size Estimate' section shows 'Measurement Unit' with 'mi' selected over 'km', and 'Area of polygon' and 'Perimeter' both showing '0'.

Dashboard Functions (2/5)

- **Activity History:** Centralized access to manage and revisit temperature maps, analytics, and insights.
- **Hierarchical Organization:** Activities are organized into main and sub-activities for easy workflow tracking.
- **Flexible Management:**
 - Rename, archive, search, filter, and sort activities for efficient exploration and analysis.
 - Sort activities by creation date (Today, Yesterday, Previous Days) or status (Active, Failed, Archived).
- **Search & Filters:** Refine activities by status or type (Heat Map, Analytics, Insights).
- **Archiving:** Move activities to a dedicated section to declutter and manage your history.
- **Customization:** Rename activities to personalize and organize your activity history.



Dashboard Functions (3/5)



Temperature Map Controls

- Customization: Switch temperature units, adjust color ramp, classification classes, and opacity.
- Map Management: Save, apply, or clear map settings.
- Interactive Features: Toggle layers, zoom to specific areas, and download heatmap data.
- Tile Temperature Popup: Clicking on any tile within a heatmap will open a popup that will show the temperature at the tile.

Dashboard Functions (4/5)

Why it is **hot**.

Bringing the world's best analytical software tools to your finger tips and with speed.

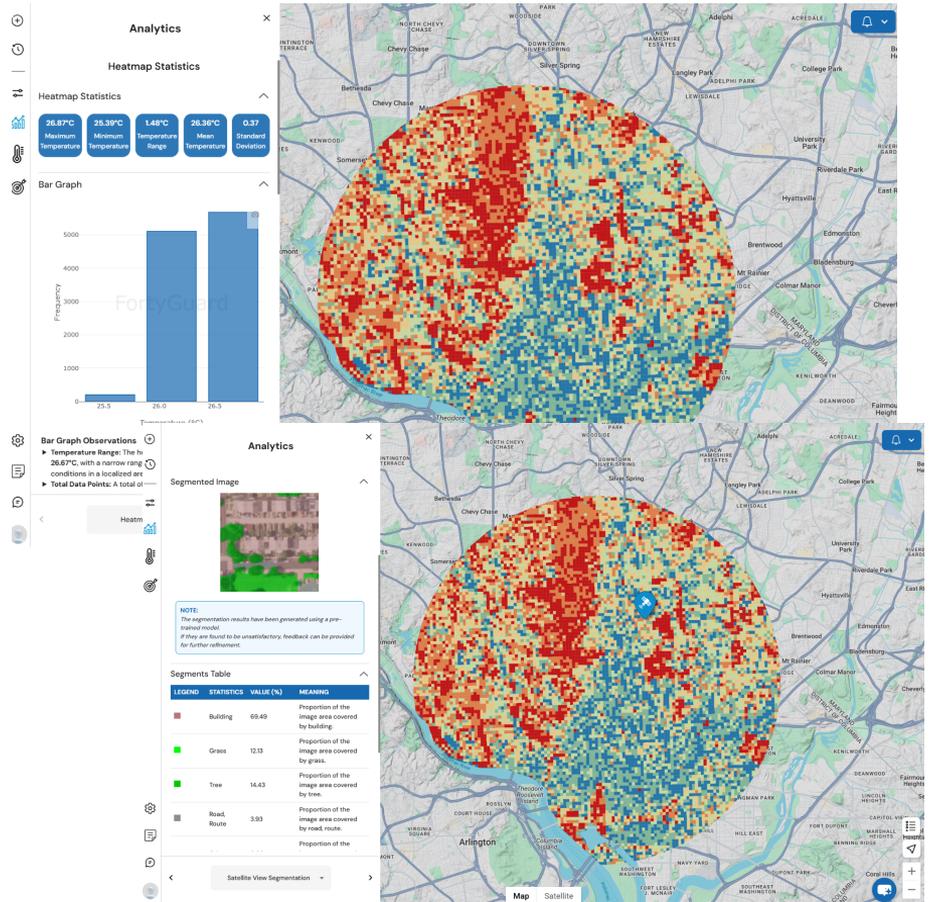
Analytics

Identifying the desired mapping parameters; our AI algorithms will analyze the data in order to pinpoint exact reasons for the thermal condition of the site, providing a comprehensive time-temperature breakdown of the map.

Segmentations

Surface-level intelligence in two powerful views:

- **Satellite Segmentation** identifies urban material patterns from above — classifying rooftops, roads, green zones, and more using remote sensing.
- **Street-Level Segmentation** zooms in to a human-scale — recognizing sidewalks, façades, tree canopies, even parked vehicles to create detailed surface profiles.



Dashboard Functions (5/5)

Why it **matters**.

Unlock what's *really* heating your environment — and what you can do about it.

Heat Dynamics

Dive deep into the forces behind local temperature change. Our reports analyze how **Geographic Information**, **Environmental conditions**, **Urban morphology**, **Event-based anomalies**, and **Anthropogenic factors** all converge to shape your area's unique heat profile.

Decision-Ready

Built for planners, developers, and climate officers. Equip your next project with location-specific intelligence that empowers confident, climate-resilient choices — fast.

The screenshot displays the 'Heat Intelligence' dashboard interface. On the left is a vertical navigation menu with icons for home, history, filters, analytics, location, and settings. The main content area is titled 'Heat Intelligence' and includes a sub-header 'Heat Intelligence Report' with a dropdown menu for 'Report ID: c5ad938f-ef36...'. Below this is a 'Select Location for Analysis' section with a 'Select a Tile' button and a tile selection window showing 'Temp: 26.48°C', 'Lat: 38.930203', and 'Lng: -77.048128'. The 'Analytics Type' section has checkboxes for 'Geographic Information', 'Environmental', 'Urban', 'Events', and 'Anthropogenic Factors'. A 'Generate Report' button is at the bottom. The right side shows a preview of the 'Heat Intelligence Report' with a 'Geographic Analysis' section containing three sub-sections: '1. General Location', '2. Terrain & Elevation', and '3. Proximity to Water Bodies'. Each sub-section lists specific data points and sources.

Heat Intelligence

Heat intelligence refers to the ability to analyze and interpret temperature data to optimize and enhance comfort in various environments. It involves using advanced algorithms and sensors to monitor heat patterns, predict energy needs, and improve efficiency in heating systems.

[Need a demo?](#)

Select Location for Analysis

Select a Tile

Title 1

Temp: 26.48°C
Lat: 38.930203
Lng: -77.048128

Analytics Type

Geographic Information Events

Environmental Anthropogenic Factors

Urban

Generate Report

Heat Intelligence Report

Report ID: c5ad938f-ef36...

Geographic Information | Environmental Factors | Urban Factors | Events Analysis | Anthropogenic Factors

Geographic Analysis

1. General Location

- City: Washington, D.C.
- State: District of Columbia
- Country: United States
- Geographical Description: Urban core, inland city
- Climatic Conditions: Prone to hot, humid summers and mild to cold winters

Source: U.S. Census Bureau, NOAA

2. Terrain & Elevation

- Elevation: Approximately 7 meters (23 feet) above sea level
- Terrain: Predominantly flat with some gentle slopes
- Influence on Heat: Flat terrain leads to uniform heat distribution; low elevation can result in higher humidity levels

Source: USGS

3. Proximity to Water Bodies

US, California: Riverpark Tower, 4th Floor, WeWork
333 W San Carlos St San Jose, CA 95110

UAE, Abu Dhabi: Al Khatem Tower, 14th Floor,
WeWork Hub71, ADGM, Al Maryah Island, PoBox:
3317

