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.

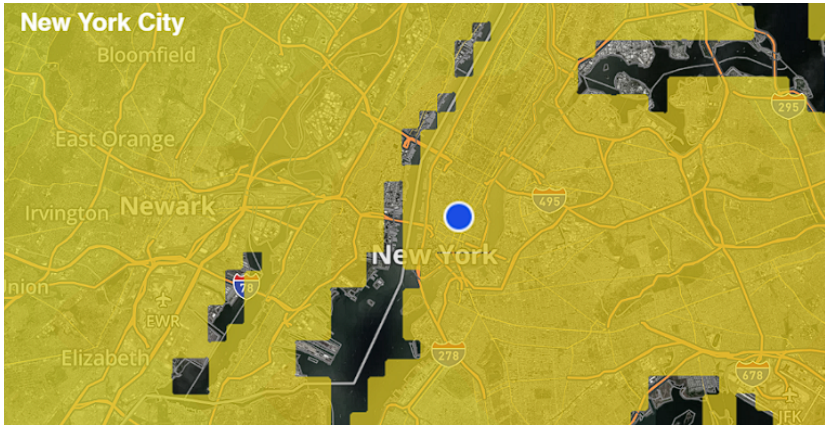
Data sources: IEA, Lancet Countdown Report on Health and Climate Change

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

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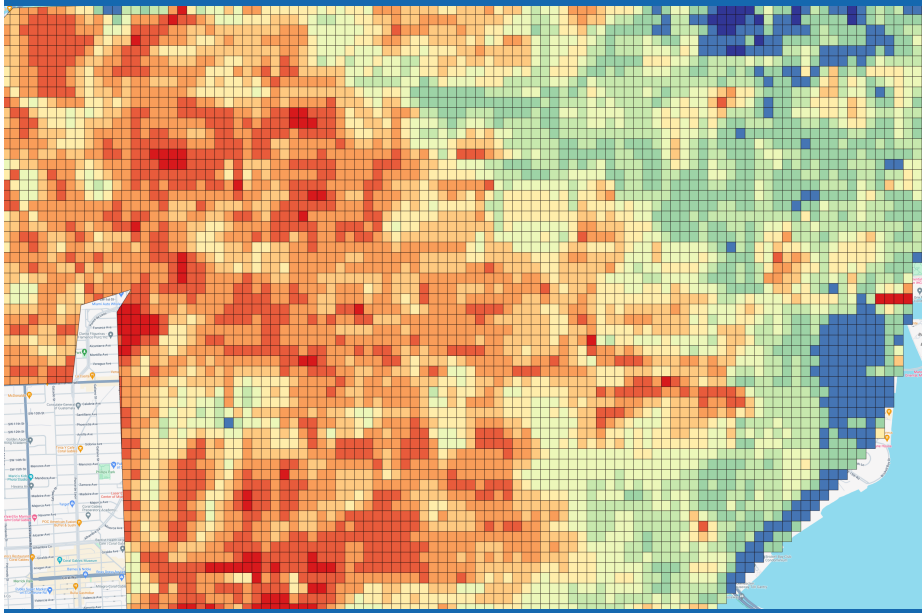


FortyGuard
300x accurate, 100x cheaper, cloud stream

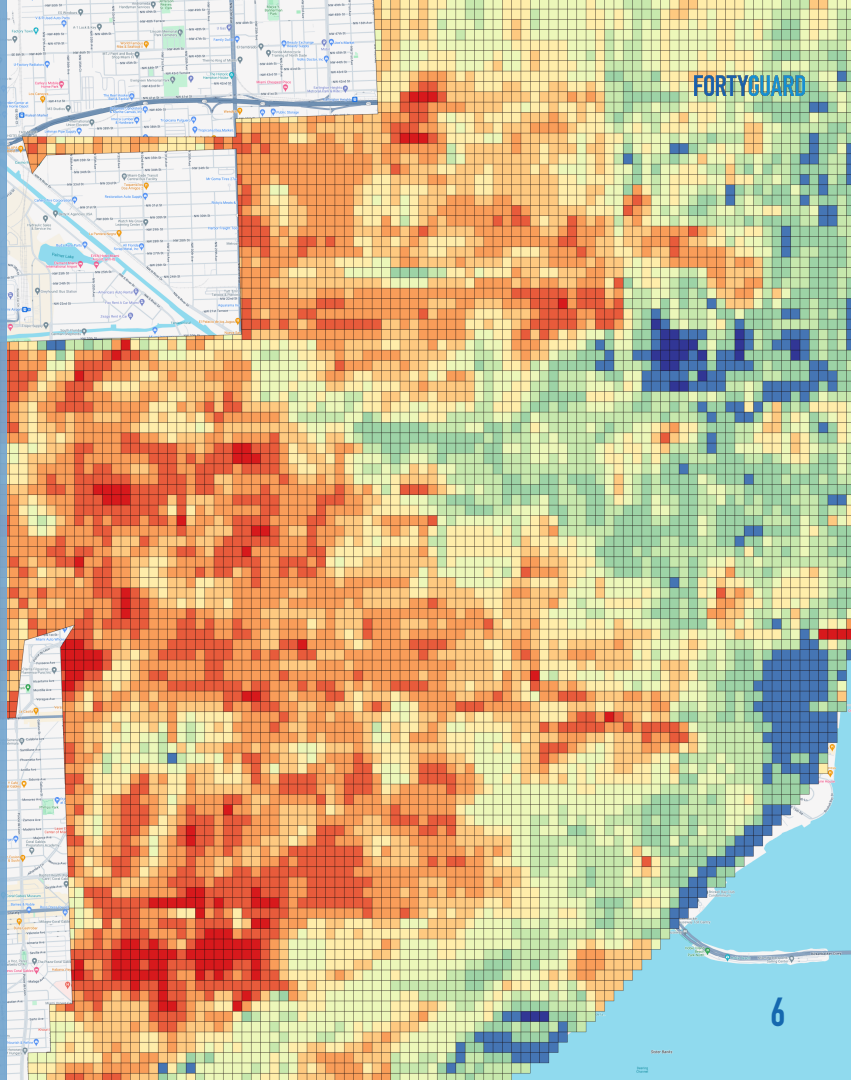
The Solution Is Here

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

300 times Greater Accuracy
10 m^2 vs. 30 km^2
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.

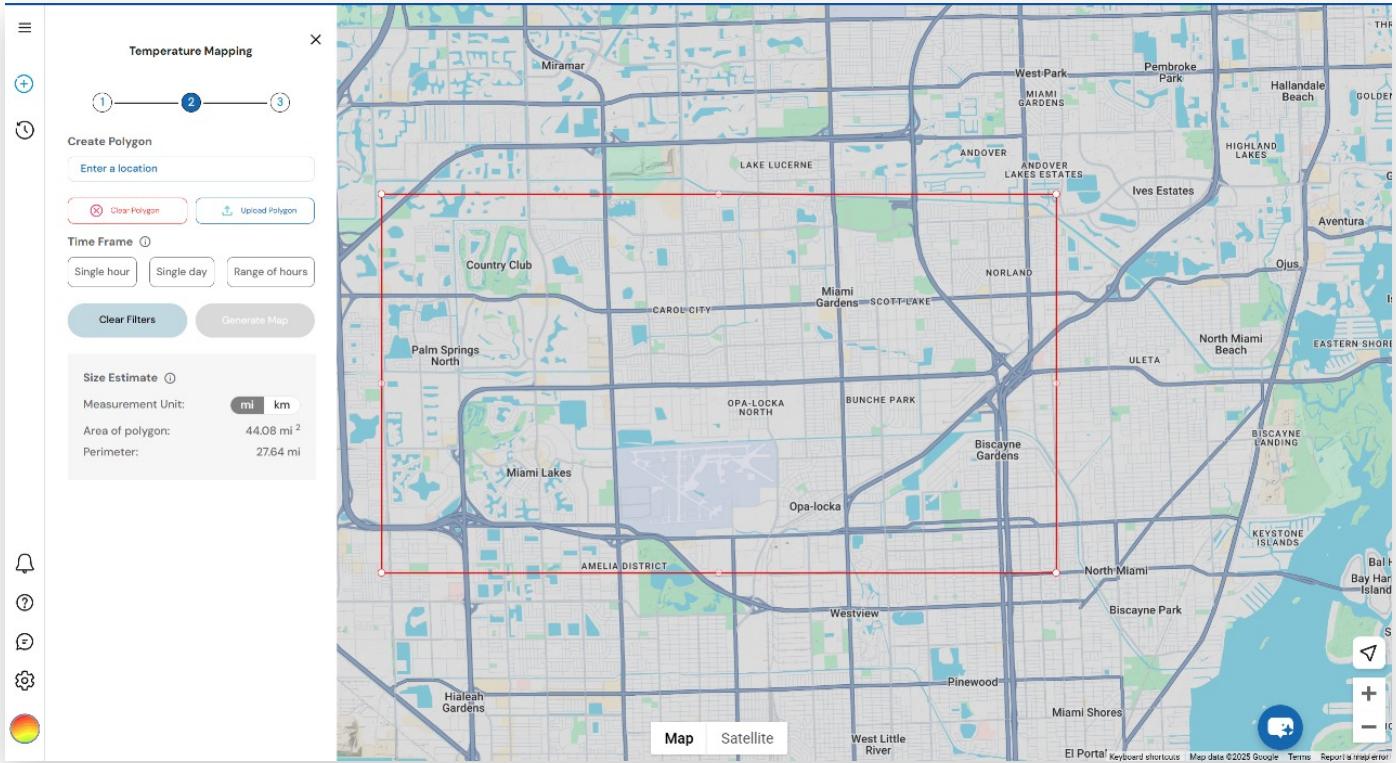
"LTMs" Large Temperature Models

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®

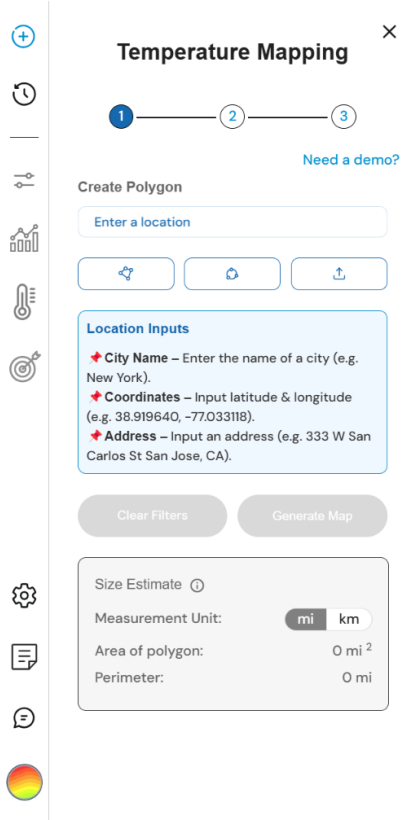
Our flagship & killer product, built by clients feedback and paid services

- 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
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
Miramar
West Park
Pembroke Park
Hallandale Beach
MIAMI GARDENS
LAKE LUCERNE
ANDOVER
ANDOVER LAKES ESTATES
HIGHLAND LAKES
Ives Estates
Aventura
Country Club
NORLAND
Ojus
Miami Gardens
SCOTT LAKE
CAROL CITY
Palm Springs North
North Miami Beach
EASTERN SHORE
ULETA
OPA-LOCKA NORTH
BUNCHE PARK
Biscayne Gardens
BISCAYNE LANDING
Miami Lakes
Opa-locka
KEYSTONE ISLANDS
AMELIA DISTRICT
North Miami
Westview
Biscayne Park
Pinewood
Hialeah Gardens
Miami Shores
West Little River
El Portal
Map
Satellite
Keyboard shortcuts
Map data ©2025 Google
Terms
Report a map error

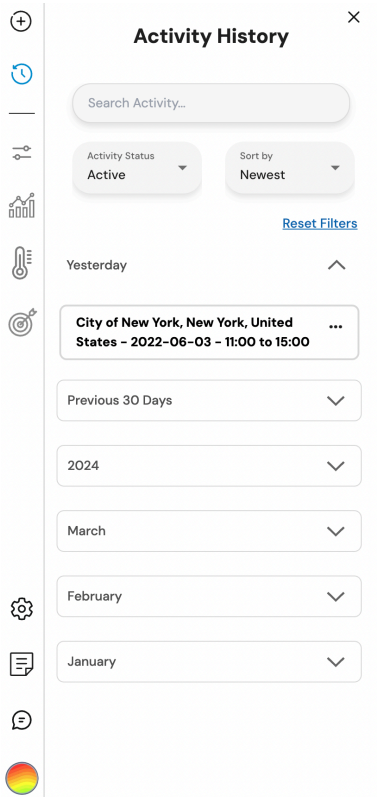
Dashboard Functions (1/5)

- **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.



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.

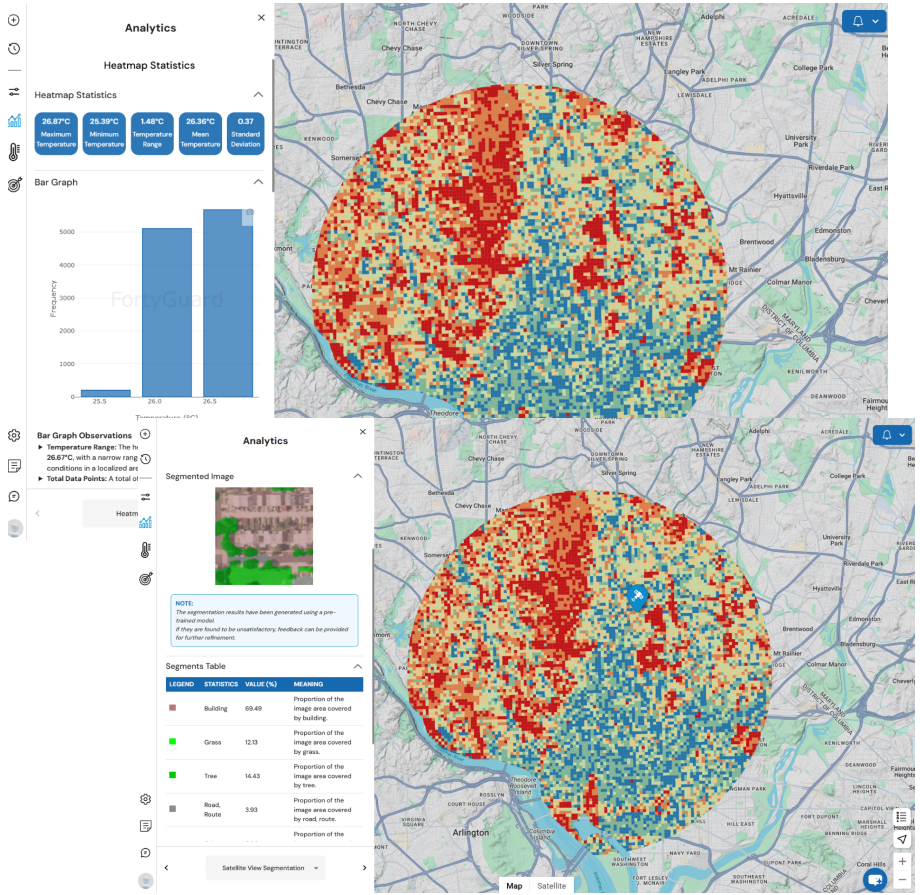
Analytics

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)

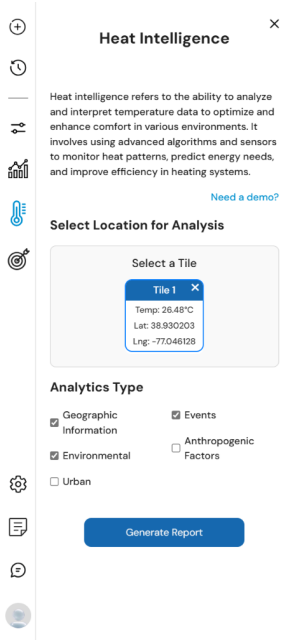
Why it **matters**.

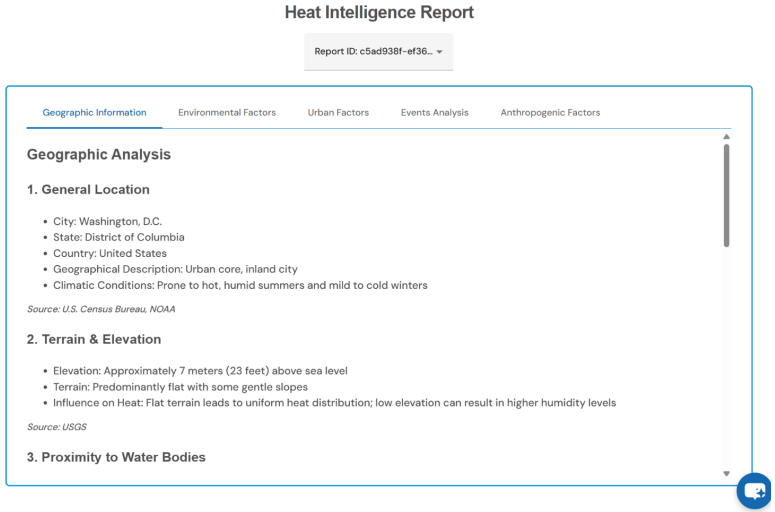
Unlock what's *really* heating your environment — and what you can do about it.

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.





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