Turf

Advanced Geo-spatial analysis for browsers and Node.

How does the magic happen?

GeoJSON + Turf = Information

GeoJSON + Turf + Mapping = Infographics

What is GeoJSON?

GeoJSON is a format for encoding geographic data structures.

- Point
- LineString
- Polygon
- MultiPoint
- MultiLineString
- MultiPolygon

GeoJSON Collections

- GeometryCollection
- Feature
- FeatureCollection

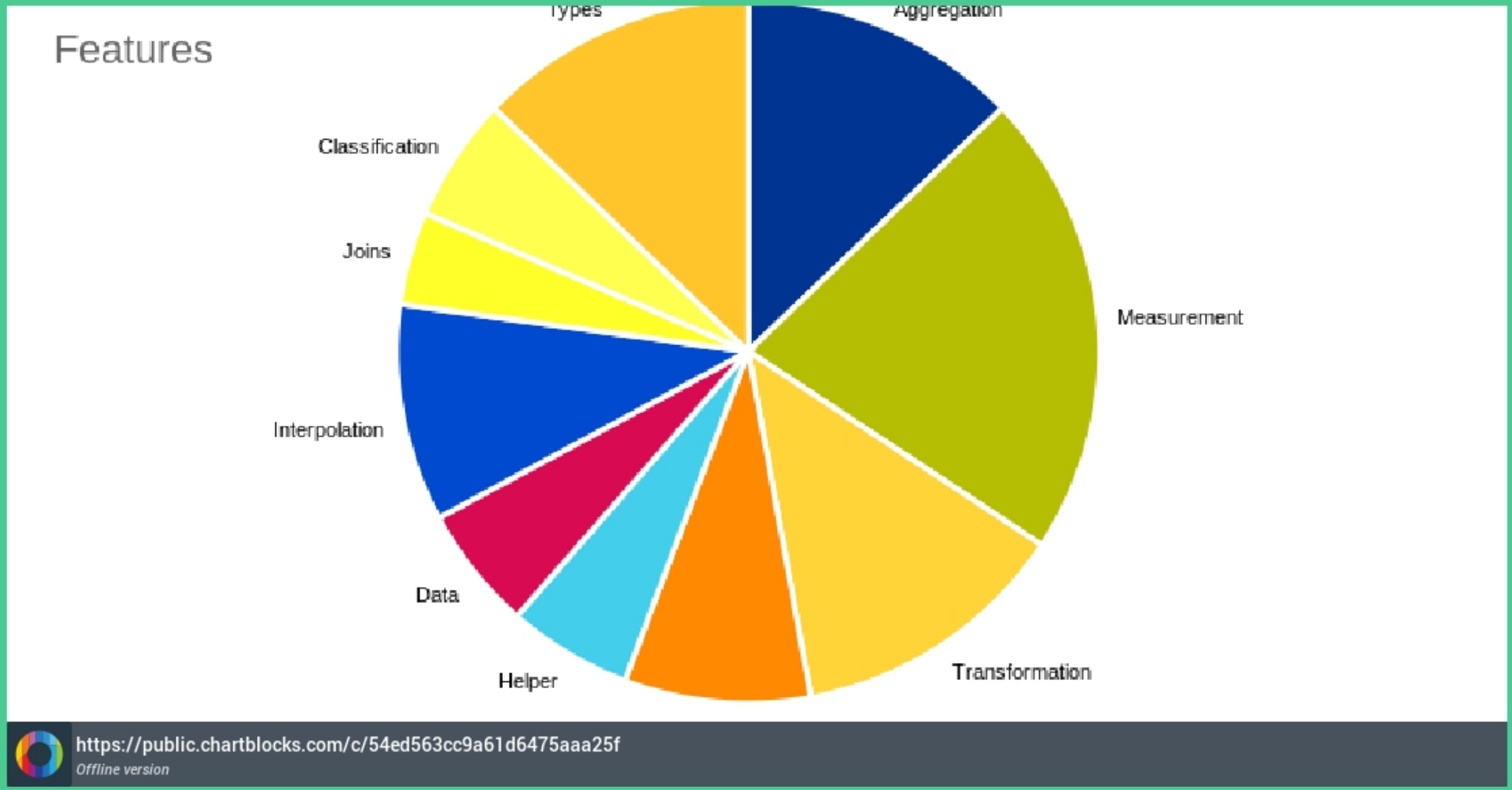
Explore GeoJSON

geojson.io is a graphical mapping site.

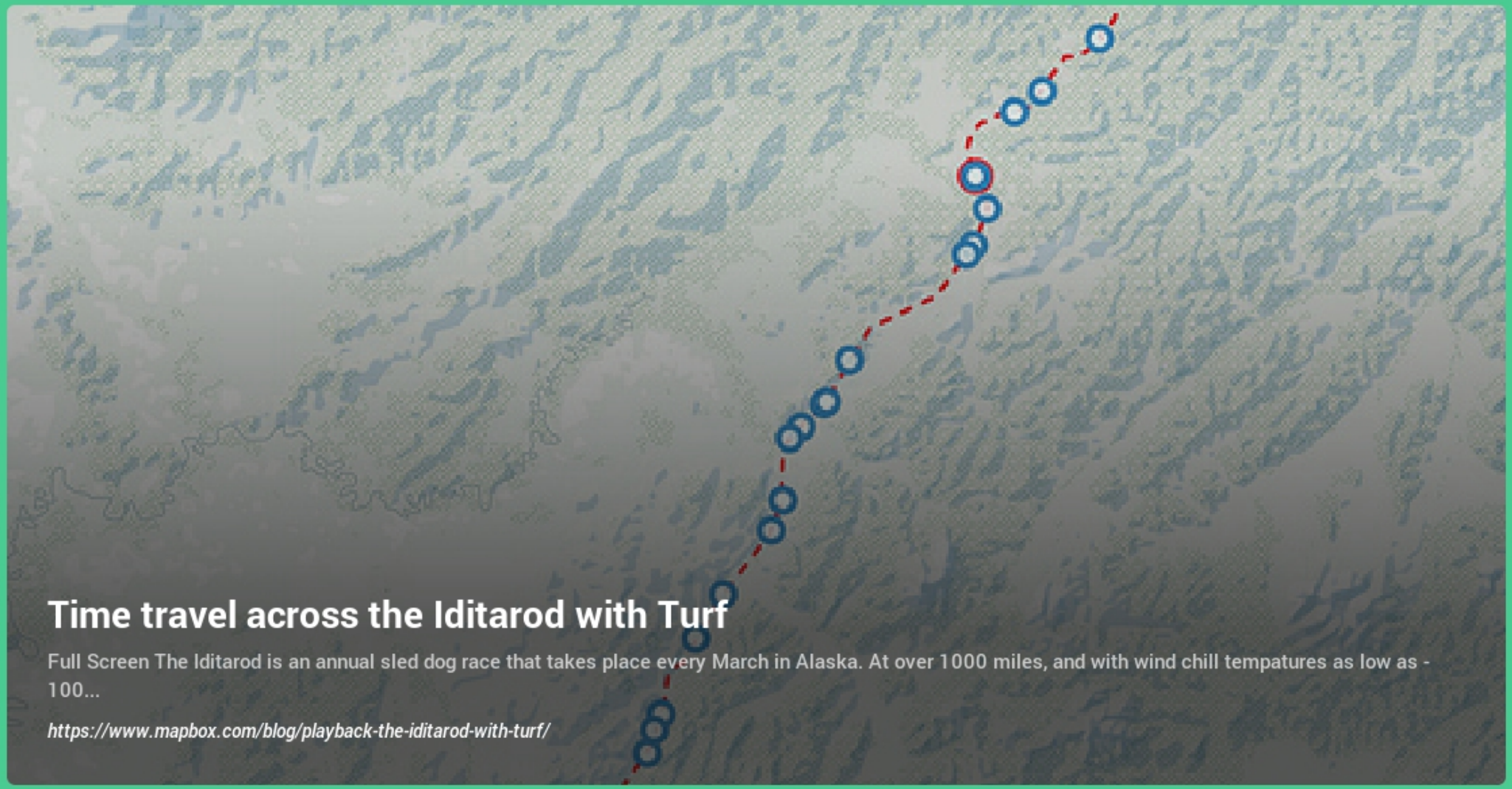
It lets you annotate a map (and much more).

It generates GeoJSON of those annotations.

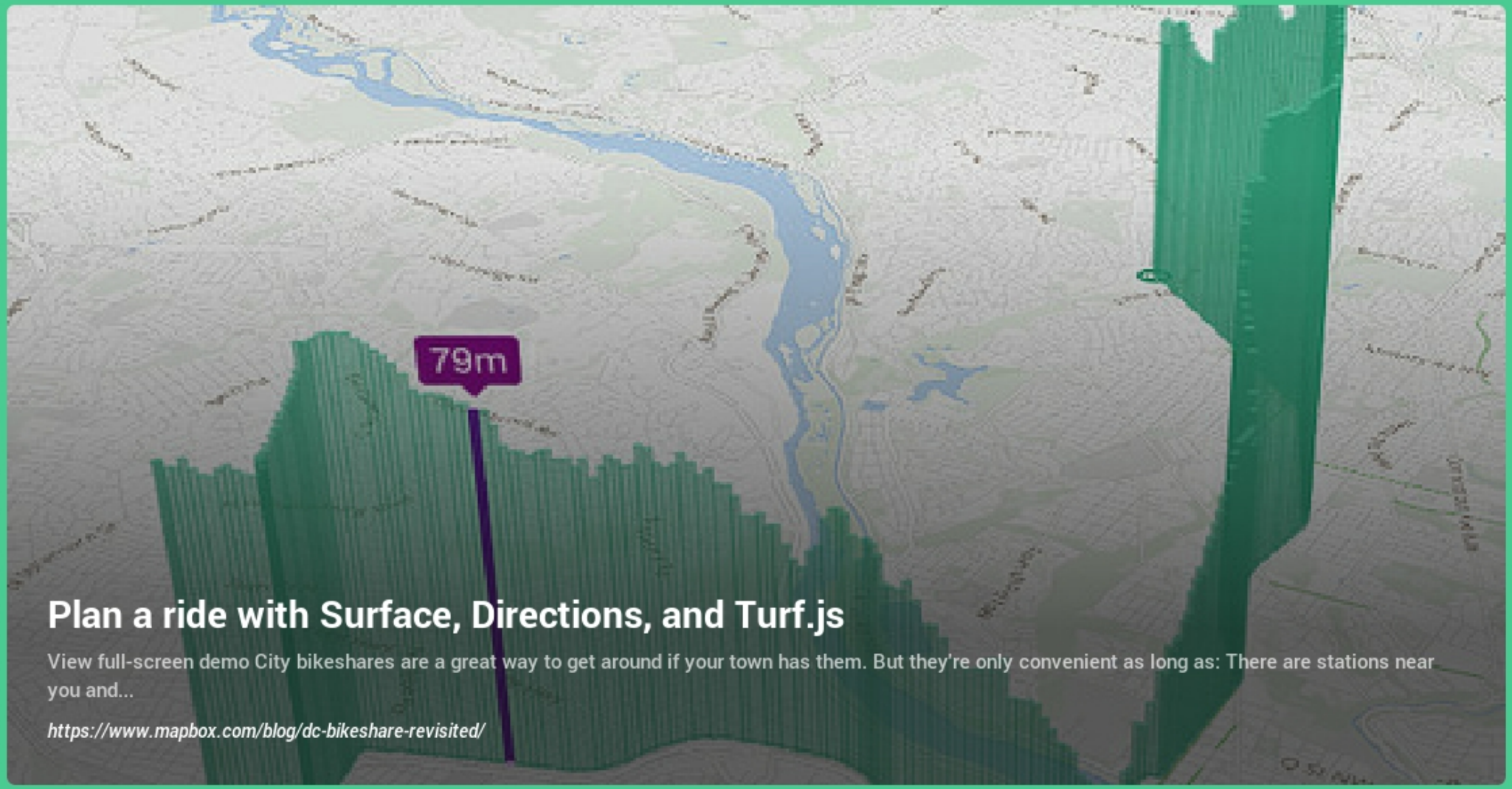
Okay...What does Turf do?



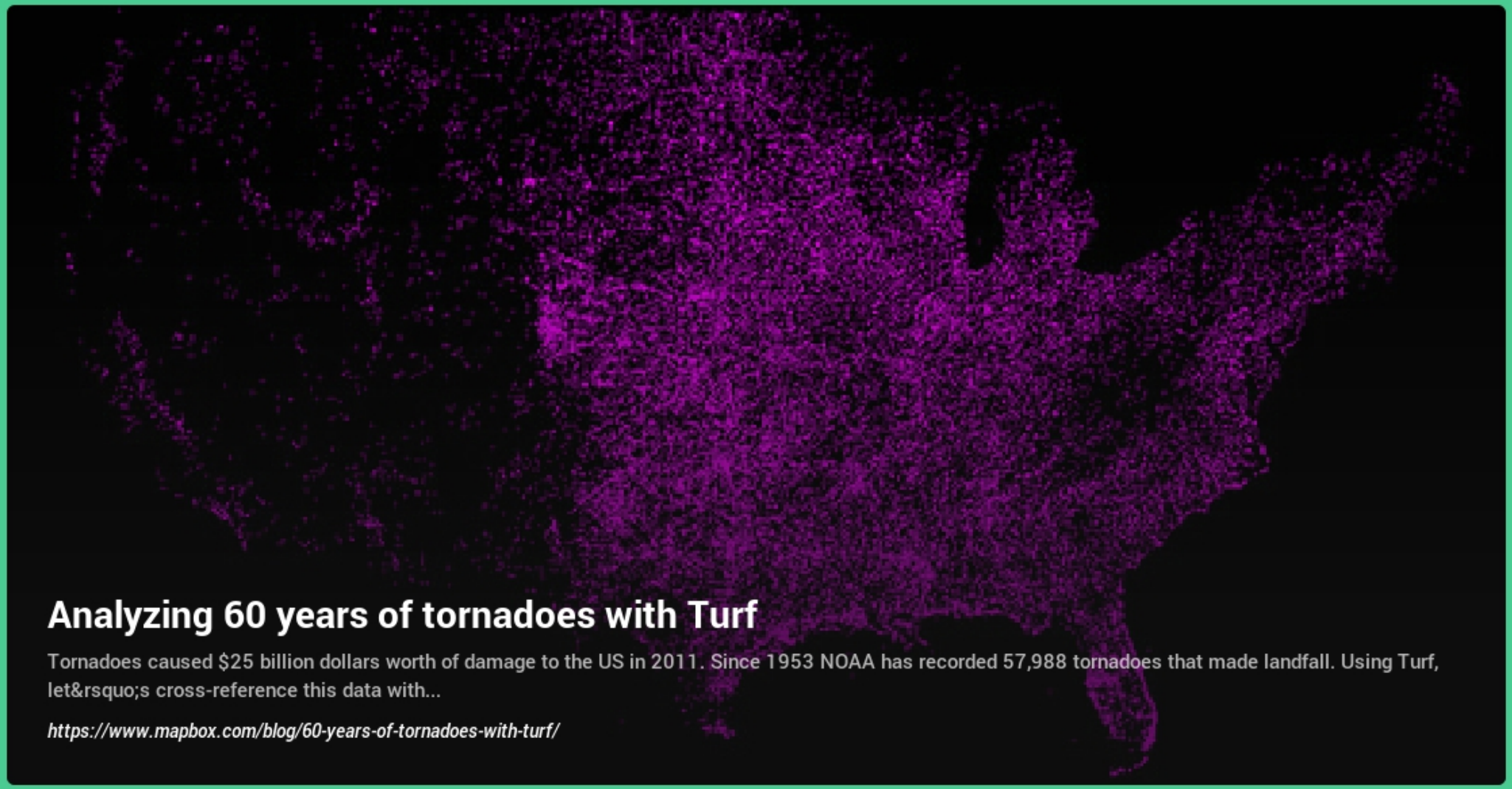
Use Case: Tracking



Use Case: Planning



Use Case: Event Density



Node Example (Hacked from the Event Density use case)

Goal: Count my Swarm check-ins by region

Inputs: GeoJSON for geographic borders & check-ins

Output: A listing of region and check-in counts

Node Example: Code (See JS Tab)

http://codepen.io/bshouse/pen/ogyvQN

Offline version

Node Example: Output

USA-CA: 30
USA-CO: 6102
JPN: 18
KOR: 140
MEX: 8
USA-NV: 35
USA-WA: 14
USA-TX: 15

Questions

[Insert questions and answers here]

Resources

Introduction to Turf

Socrata Open Data

Open Data Colorado

Natural Earth Data

MapShaper

Ogre

References

TurfJS.org

GeoJSON.io

MapBox.com

MapShaper.org

Tips & Tricks

Shape Files to GeoJSON:

ogr2ogr -F GeoJSON -t_srs crs:84 [Output].json [Input].shp

RSS to GeoJSON:

ogr2ogr -F GeoJSON [Output].json [Input].rss

Twitter to GeoJSON:

```
echo '{"type":"FeatureCollection","features":'"$(cat TWITTER.json | jq 'select(.geo)| {type:
"Feature", geometry:{type:"Point", coordinates:
[.geo.coordinates[1],.geo.coordinates[0]]},properties:
{tweet_body:.text,handle:.user.name}}' | jq -s .)"'}' > TWITTER_GEO.json
```