

Creating a World Scale AR Experience Using Geospatial Data



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Developer Relations

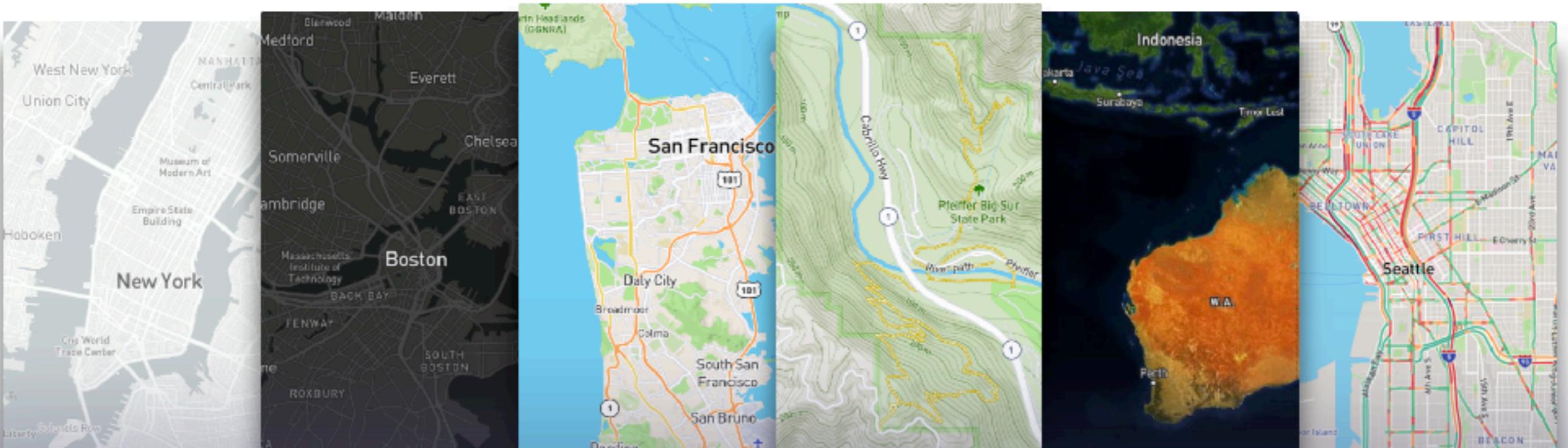


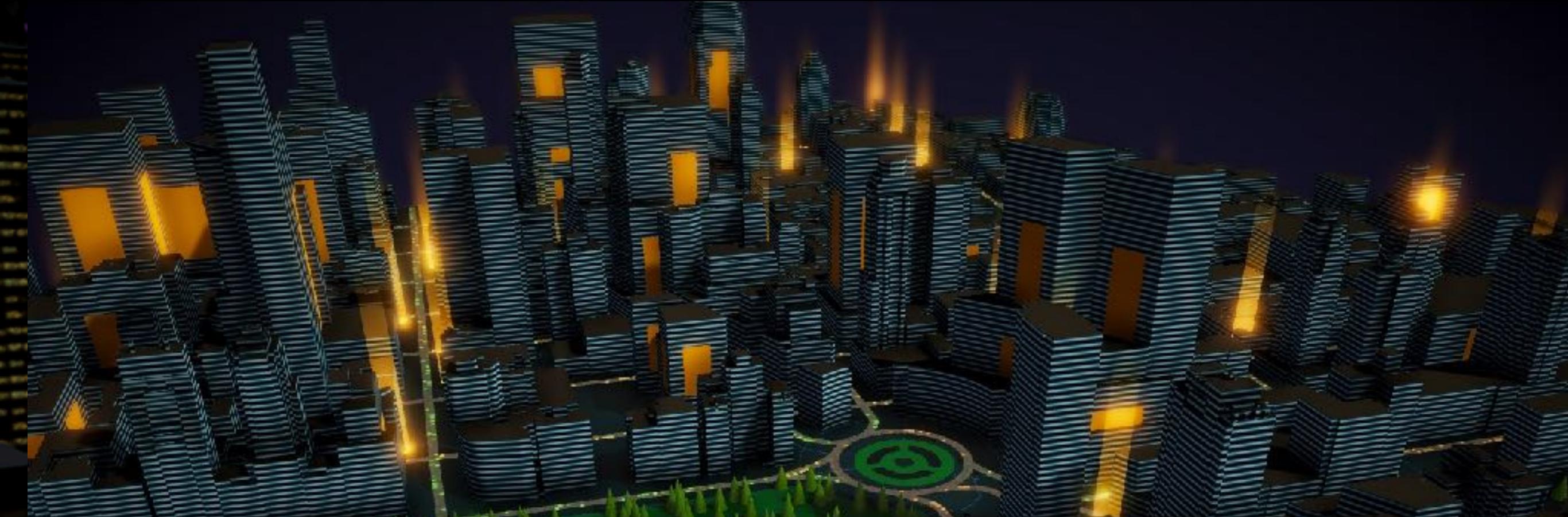
@brinybeard





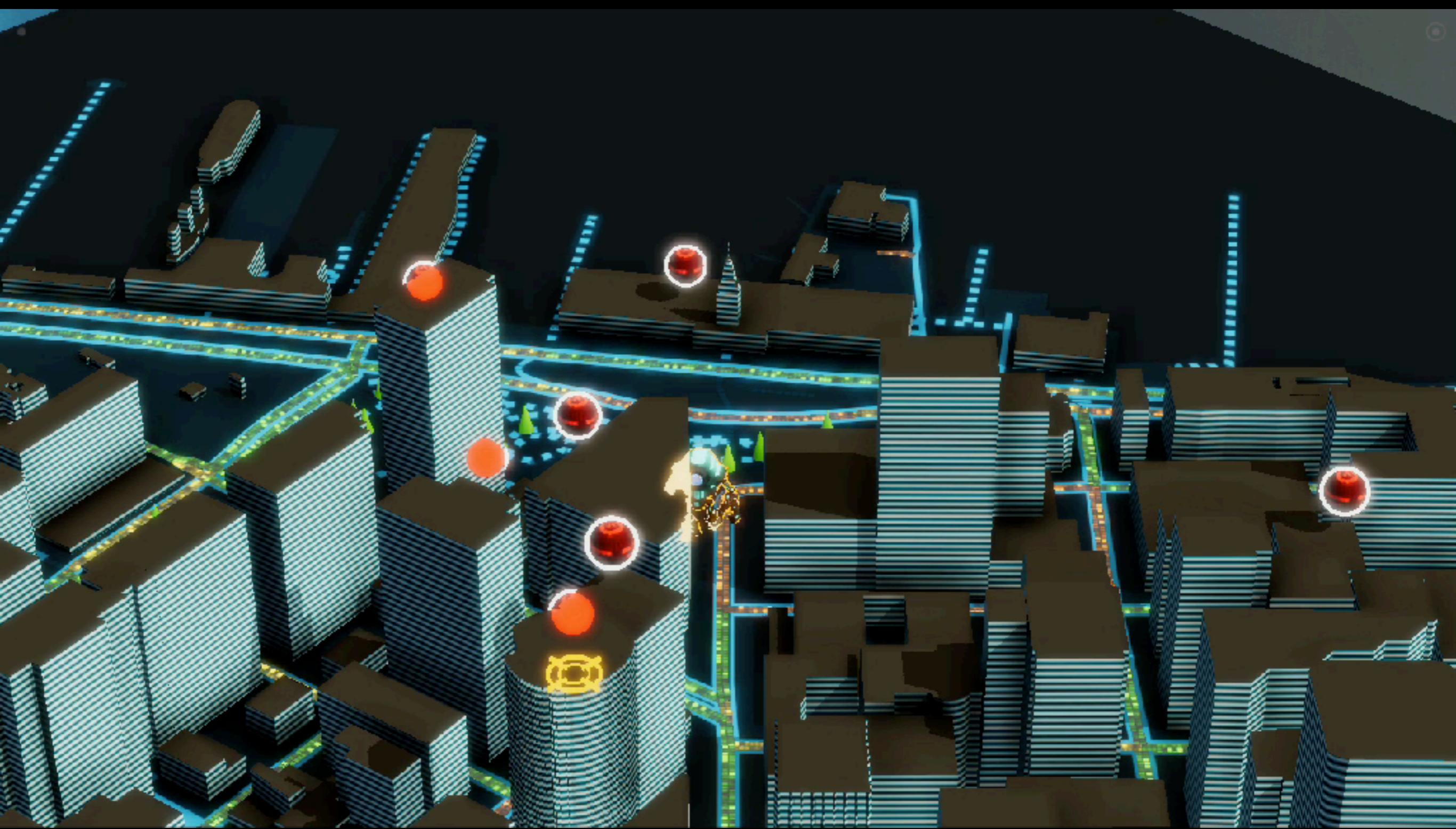
Highly customizable building blocks for maps,
navigation, and location search.





 mapbox for  unity





AR



Tabletop AR

Adam Debreczeni
@heyedam

Follow

My bike ride in AR. (Unity + ARKit + Mapbox + Strava)



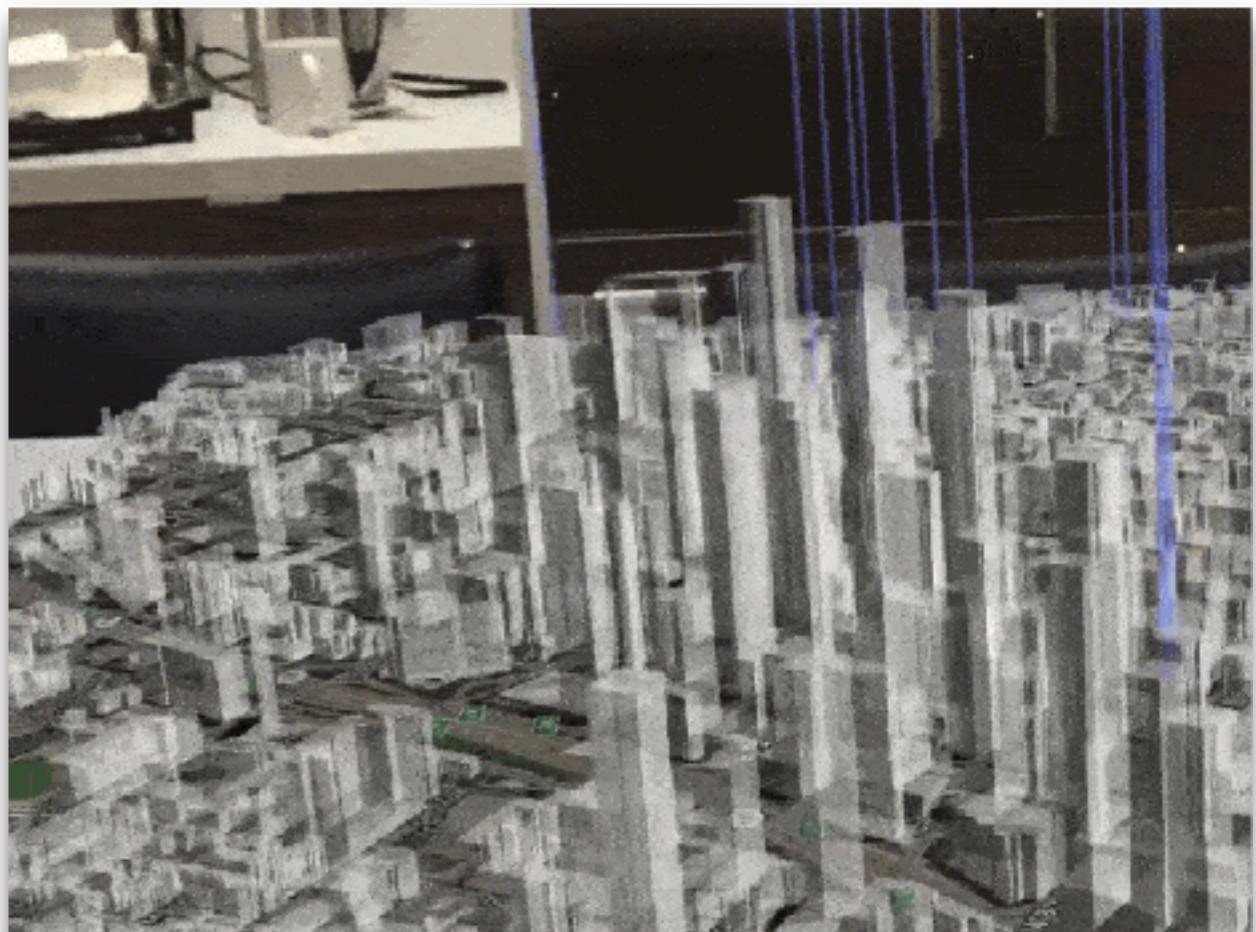
0:11 am

7:27 PM - 6 Jun 2017

3,134 Retweets 7,477 Likes



 263  3.1K  7.5K  





Location Search



Vector Data

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{  
  "type": "Feature",  
  "geometry": {  
    "type": "Polygon",  
    "coordinates": [  
      [  
        [  
          [-122.463471740484,  
           37.7659324707762  
        ],  
        [  
          [-122.463466376066,  
           37.7658508377182  
        ],  
        [  
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           37.7658497775481  
        ],  
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           37.7658211529476  
        ],  
        [  
          [-122.463463693857,  
           37.7658211529476  
        ],  
        [  
          [-122.463461011648,  
           37.7657681443989  
        ],  
        [  
          [-122.463549524546,  
           37.7657649638847  
        ],  
        [  
          [-122.463553547859,  
           37.7658285741414  
        ],  
        [  
          [-122.463536113501,  
           37.7658285741414  
        ],  
        [  
          [-122.463536113501,  
           37.7658285741414  
        ]  
    ]  
  ]  
}
```

```
,  
  "properties": {  
    "id": 285755301,  
    "lyr": "road_label",  
    "class": "street",  
    "iso_3166_2": "US-CA",  
    "len": "650",  
    "localrank": "1",  
    "name": "Irving St",  
    "name_ar": "Irving St",  
    "name_de": "Irving St",  
    "name_en": "Irving St",  
    "name_es": "Irving St",  
    "name_fr": "Irving St",  
    "name_pt": "Irving St",  
    "name_ru": "Irving St",  
    "name_zh": "Irving St",  
    "name_zh-Hans": "Irving St"  
  },  
  {  
    "type": "Feature",  
    "geometry": {  
      "type": "LineString",  
      "coordinates": [  
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        [  
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           37.7652157930608  
        ],  
        [  
          [-122.462119907141,  
           37.7651733858778  
        ],  
        [  
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           37.765122497226  
        ],  
        [  
          [-122.464257627726,  
           37.7650758492645  
        ]  
      ]  
    ]  
  }
```

Routing

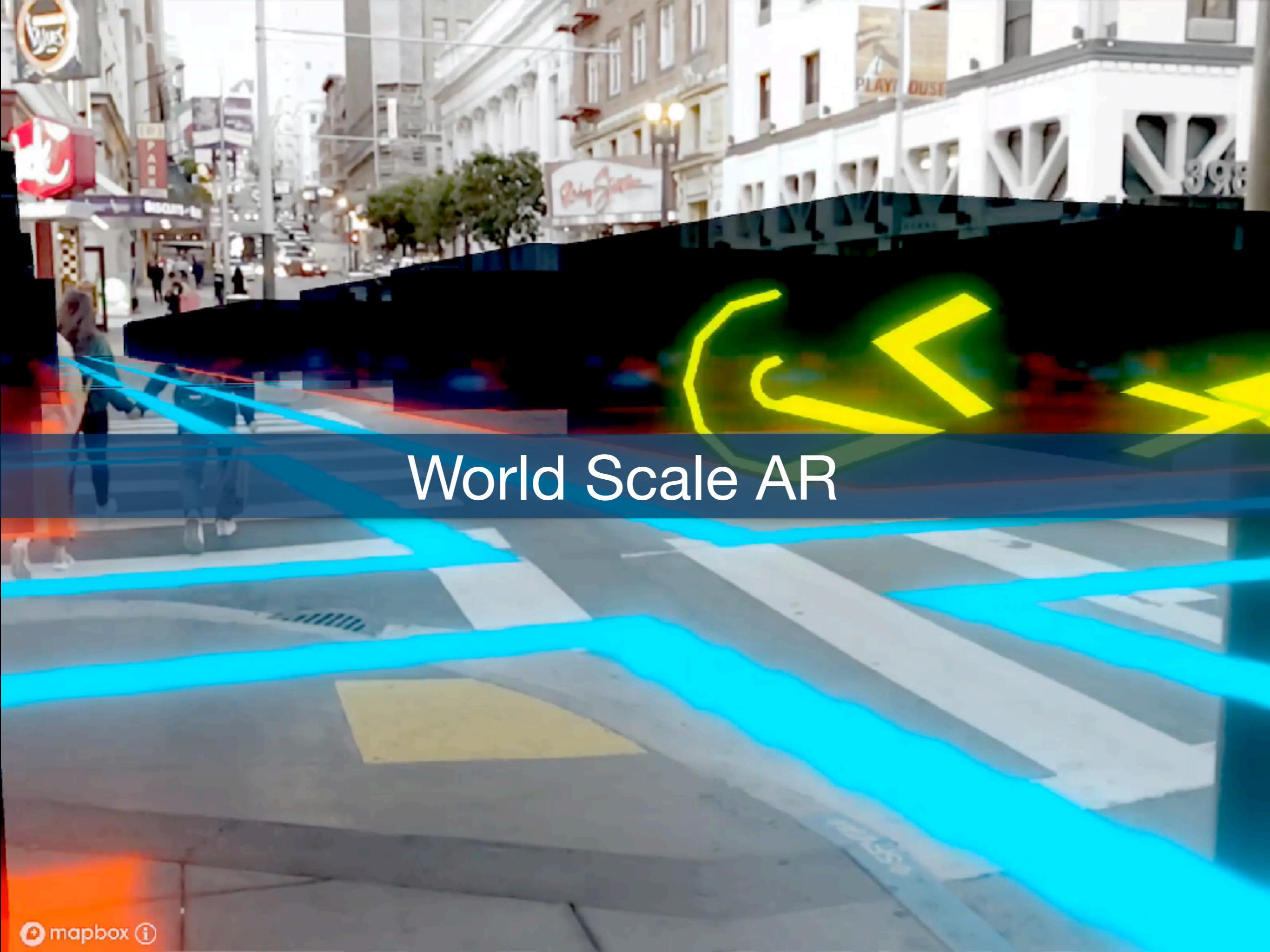


Union Square Park, San Francisco, California, United States

Union square

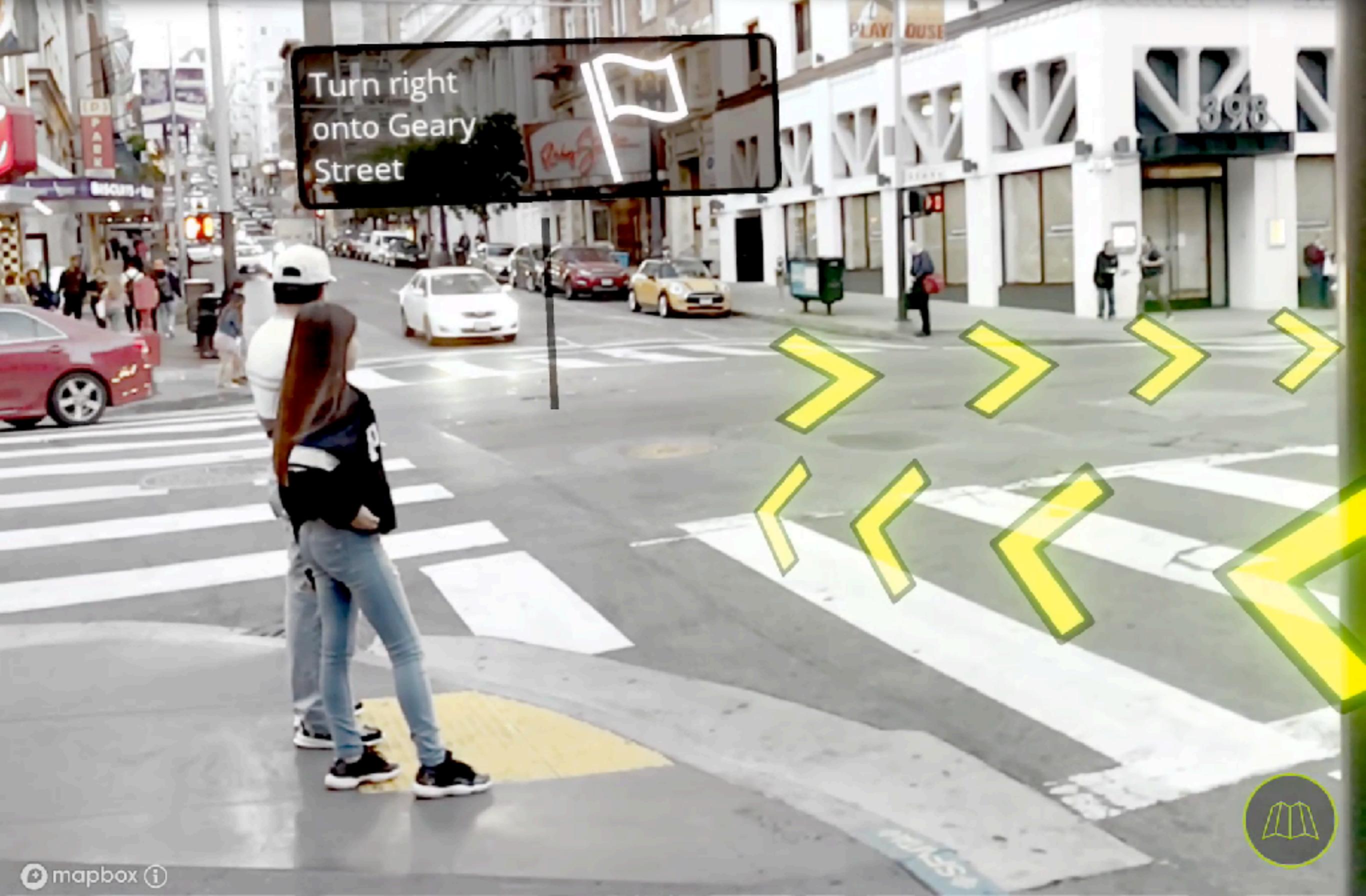
Routing

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    "mode": "driving",
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    "maneuver": [
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        "bearing_after": 125,
        "type": "depart",
        "modifier": "right",
        "bearing_before": 0,
        "location": [
          13.426579,
          52.508068
        ],
        "instruction": "Head southeast on Köpenicker Straße (L 1066)"
      },
      {
        "ref": "L 1066",
        "weight": 18.6,
        "distance": 98.1,
        "name": "Köpenicker Straße (L 1066)"
      },
      {
        "intersections": [
          {
            "out": 2,
            "location": [
              13.427752,
              52.50755
            ],
            "bearings": [
              30,
              120,
              210,
              300
            ],
            "entry": [
              false,
              true,
              true,
              false
            ],
            "in": 3
          }
        ],
        "geometry": "ekn_Imr}pARL\\T^RHDd@\\",
        "mode": "driving",
        "duration": 18.6,
        "maneuver": [
          {
            "bearing_after": 125,
            "type": "depart",
            "modifier": "right",
            "bearing_before": 0,
            "location": [
              13.426579,
              52.508068
            ],
            "instruction": "Head southeast on Köpenicker Straße (L 1066)"
          },
          {
            "ref": "L 1066",
            "weight": 18.6,
            "distance": 98.1,
            "name": "Köpenicker Straße (L 1066)"
          }
        ]
      }
    ]
  }
]
```

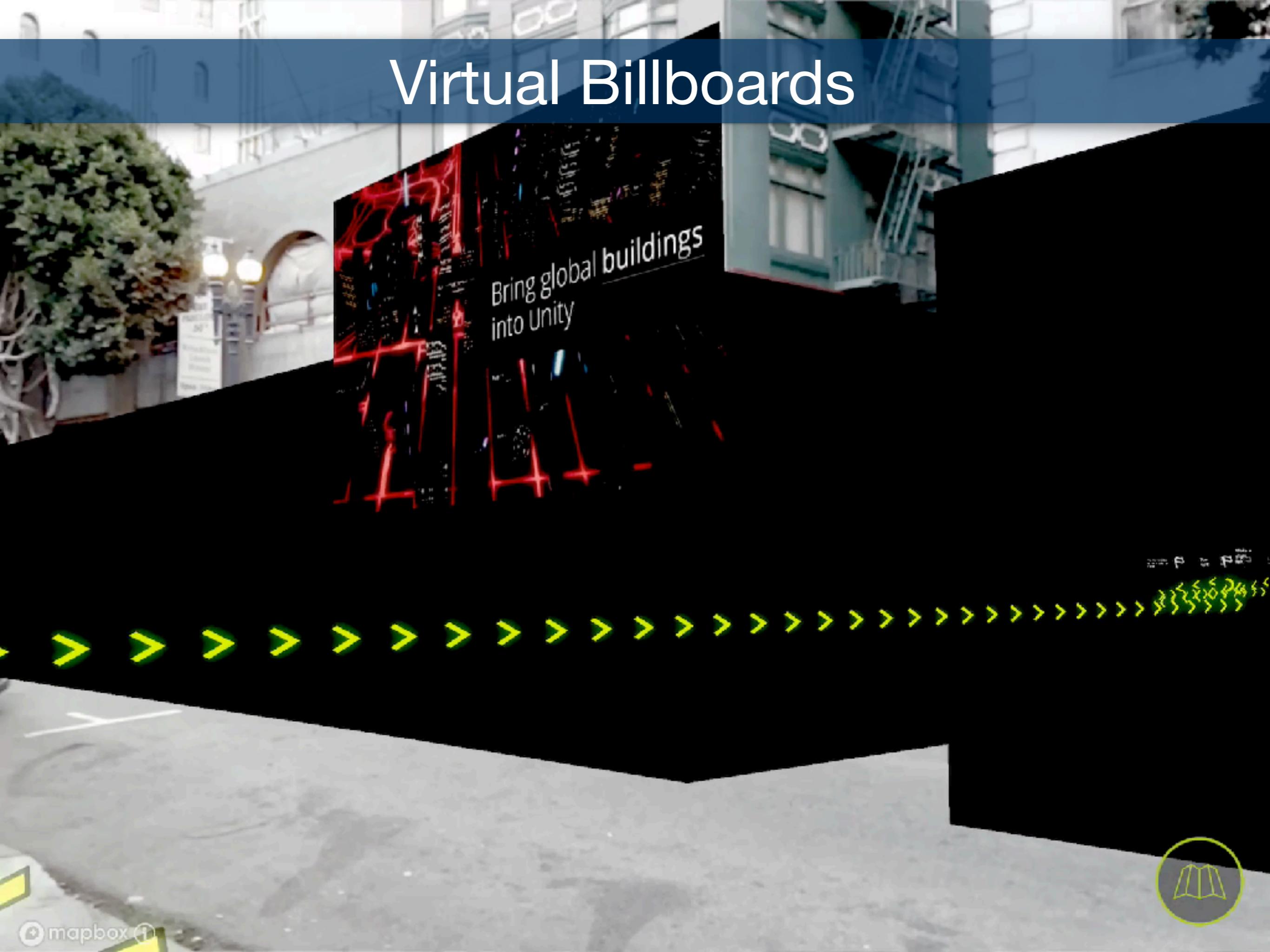
A photograph of a city street at dusk or night, showing buildings, trees, and people. Overlaid on the image are several AR elements: a large black semi-transparent rectangle covers the upper portion of the image; a yellow 3D arrow points towards the center; a blue 3D arrow points towards the bottom left; a red 3D arrow points towards the bottom right; and a green 3D arrow points towards the top right. A small orange circle with a white dot is visible in the bottom left corner.

World Scale AR

AR Navigation

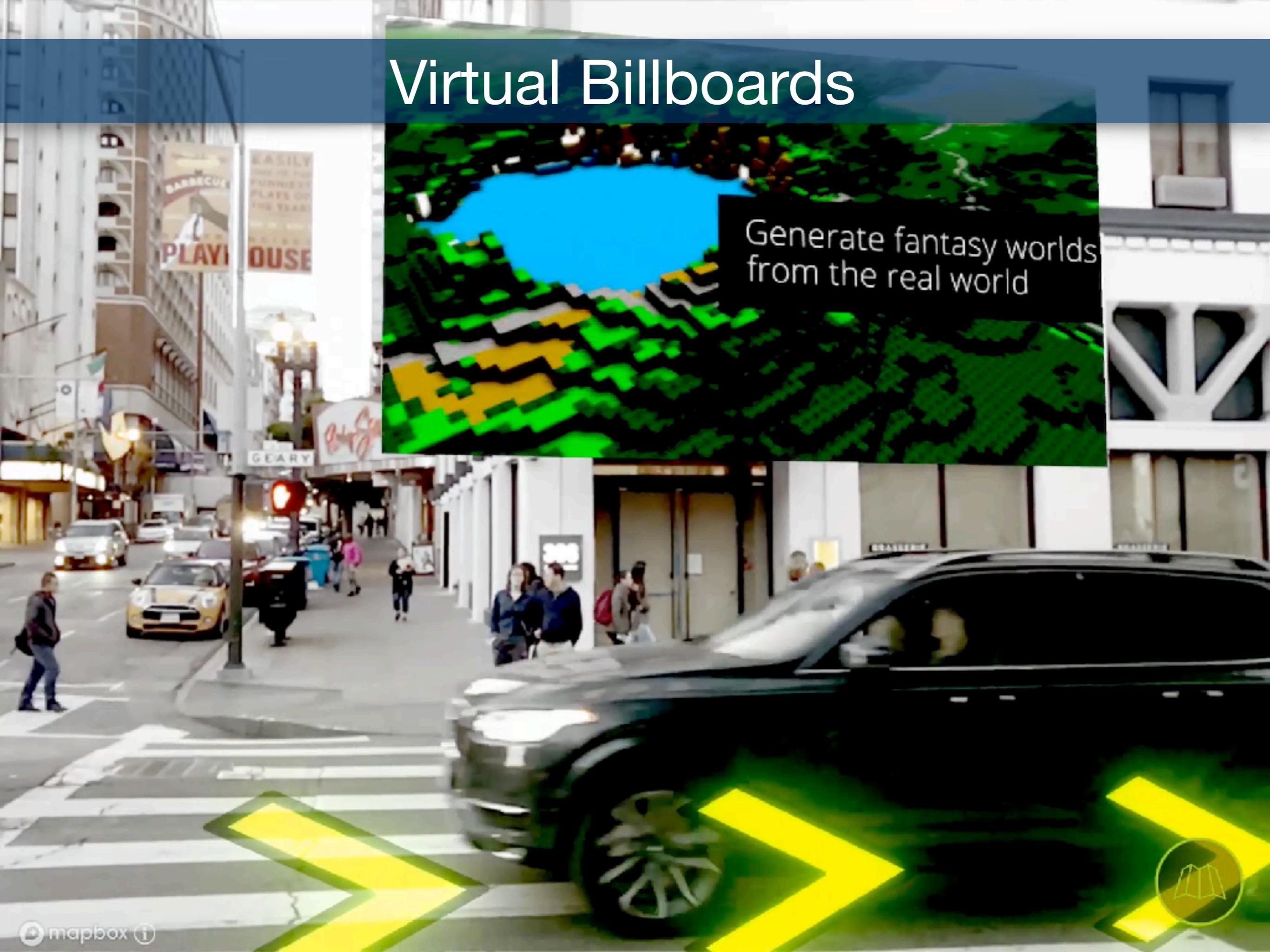


Virtual Billboards

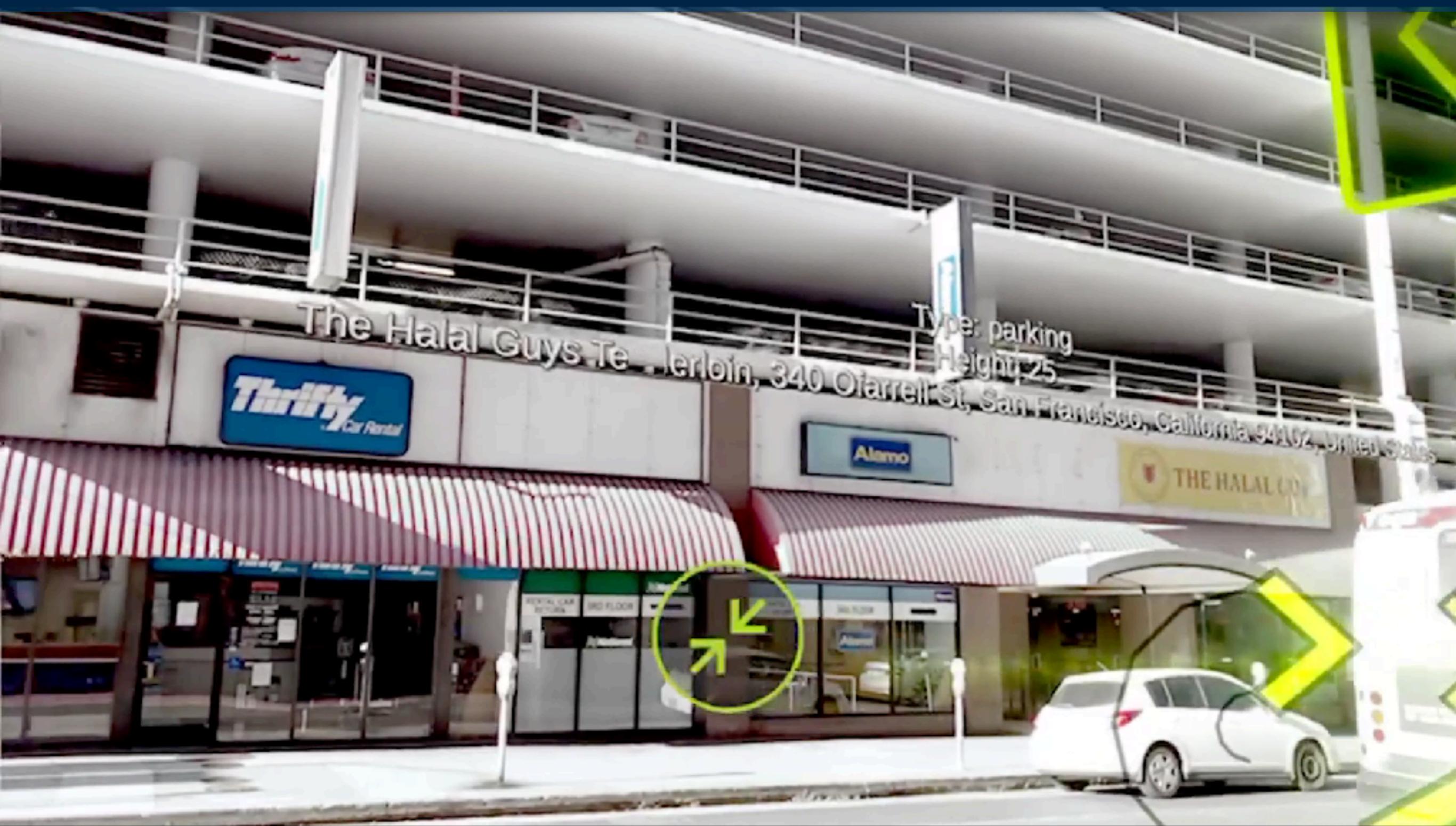


Virtual Billboards

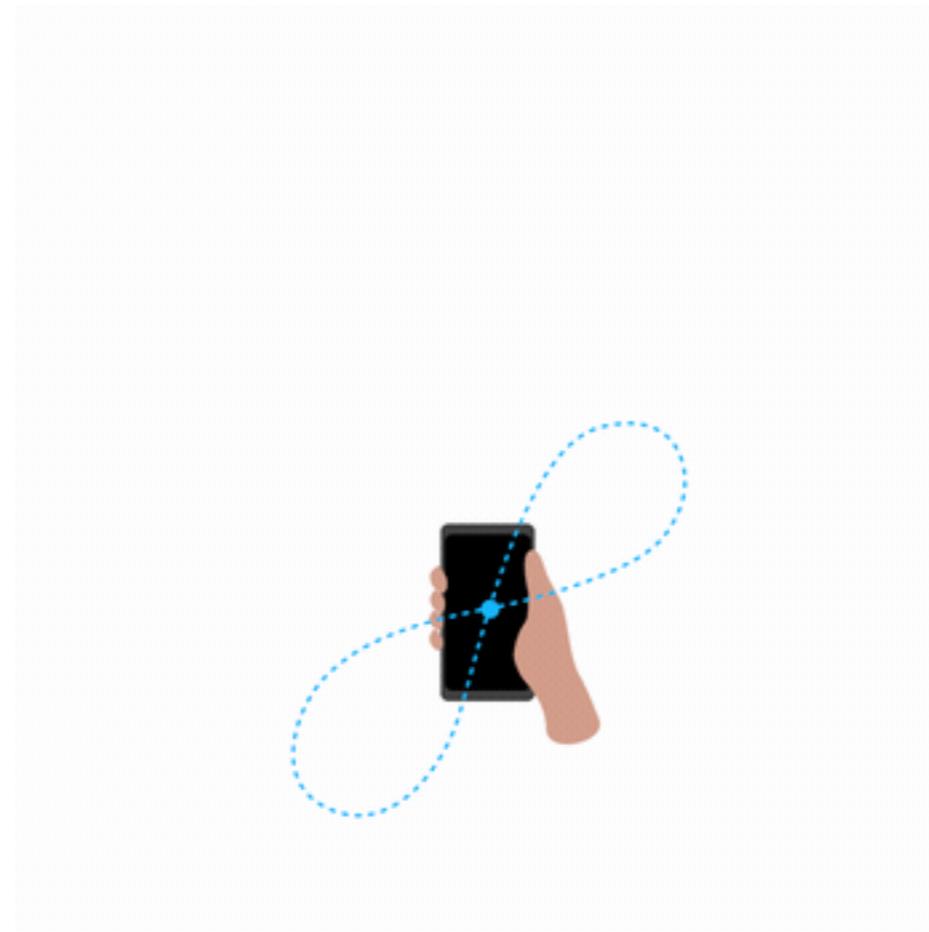
Generate fantasy worlds
from the real world



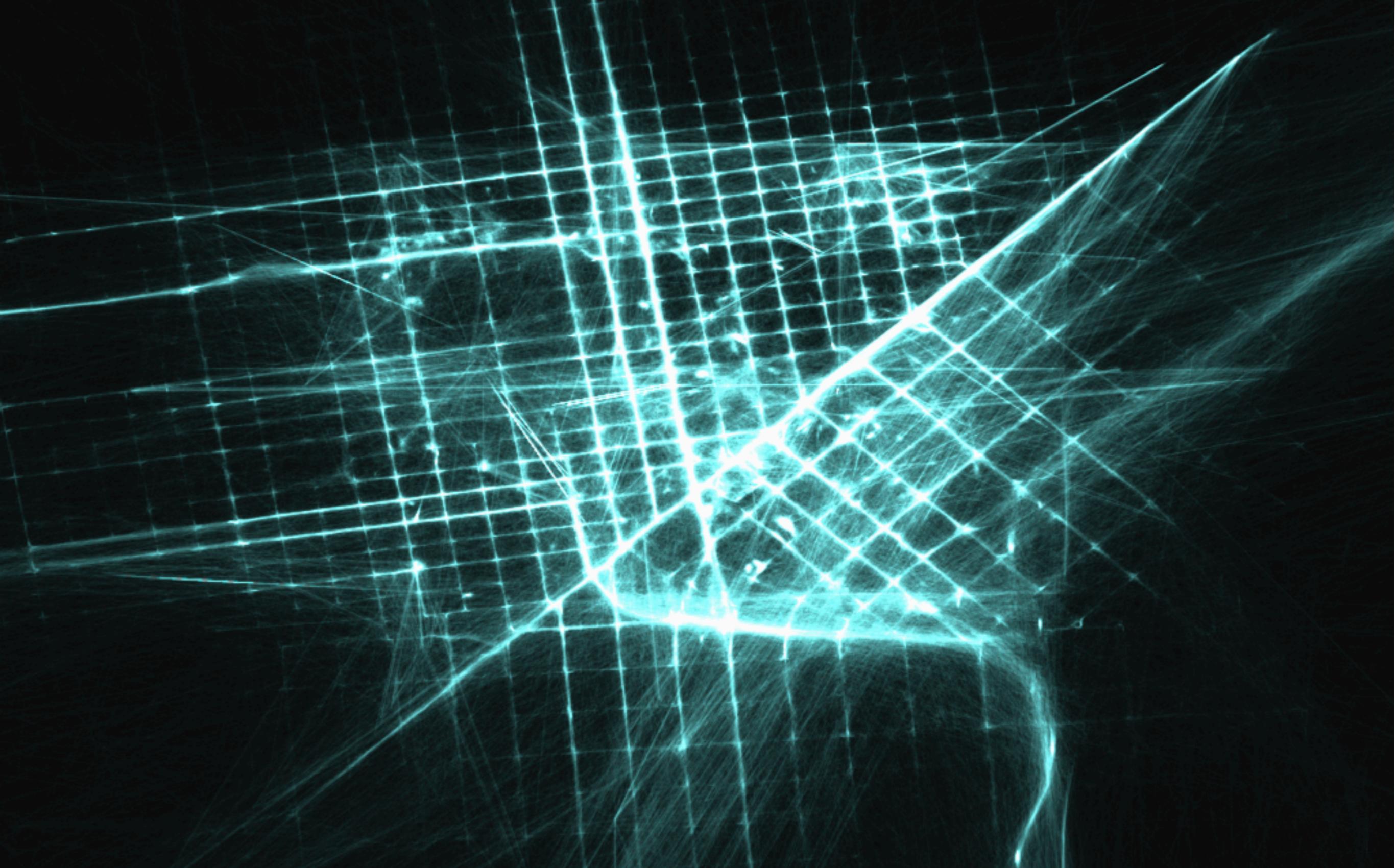
Location Information in AR



Current Limitations



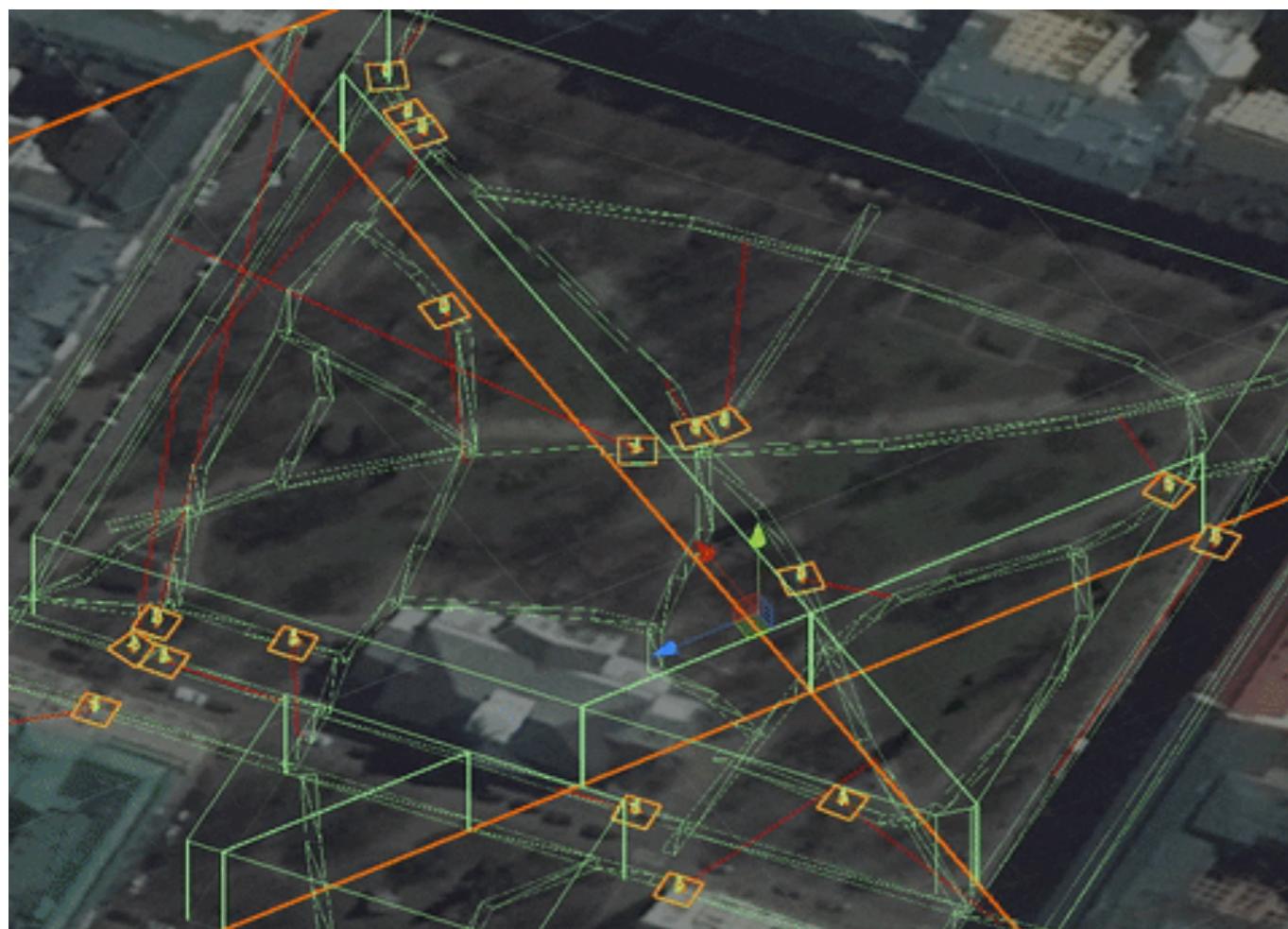
Lessons Learned



Lessons Learned



Other Uses



Mutliplayer?





You have arrived at
your destination, on
the left

mapbox.com/unity

github.com/mapbox/mapbox-unity-sdk

@davidrhodester

