Getting Started With Google Maps
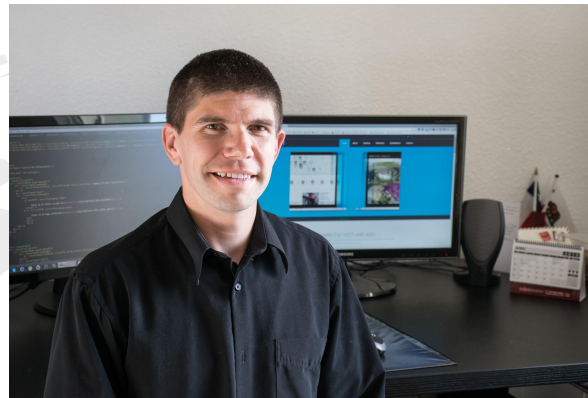
Alain Chautard
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Why this talk?

- Google Maps is extremely popular

- Yet not many developers work with it

- Maps seem to be complex, but Google Maps API is not

- It's just fun to learn how to develop something that looks great and is useful!

Why me doing this talk?

- Java developer since 2006
- Angular JS addict since 2011
- Web consultant / trainer since 2012
- Organizer of the Sacramento Angular Meetup group since 2014
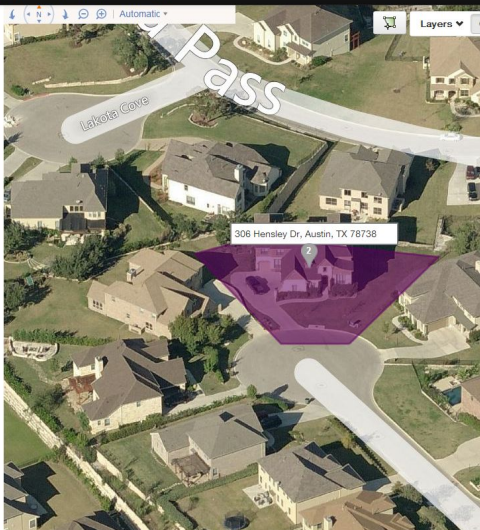- **Work with Google Maps since... 2007!**

Some of my portfolio items

What does a Map developer do?

- Add layers of data and features to a map

- Markers, polygons and filters

- Example apps: Store locator, Real estate website, Travel website, etc.
- A more creative use case: https://vimeo.com/101128770

Some code, please

- The "Hello world" of Google Maps:
https://developers.google.com/maps/documentation/javascript/examples/map-simple

- One script to import, some CSS, one div, 3 lines of JS and you're good to go

What about adding a marker?

- https://developers.google.com/maps/documentation/javascript/examples/marker-simple

- One script to import, some CSS, one div, 3 lines of JS and you're good to go

Custom icons

- https://developers.google.com/maps/documentation/javascript/examples/icon-complex

- Just an image URL is enough to customize an icon

What about some interactions?

● Open an info-window when marker is clicked:
https://developers.google.com/maps/documentation/javascript/examples/infowindow-simple

Lesser known Google Maps features (a.k.a. power user tips)

- How to get the latitude / longitude of any place on the planet?
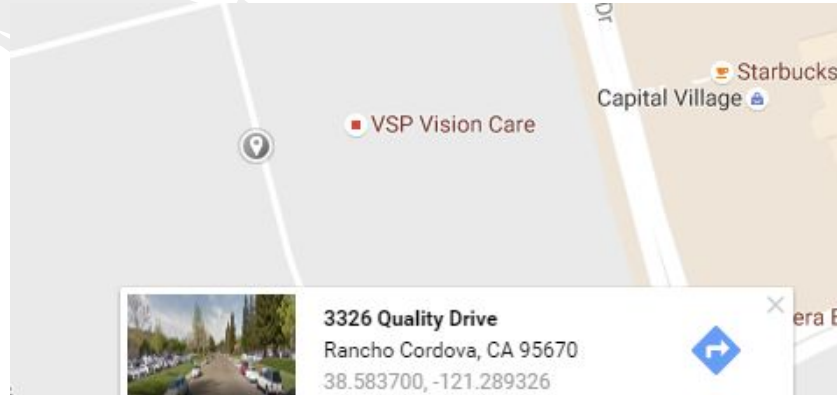
Lesser known Google Maps features (a.k.a. power user tips)

- 3D view + tilt

Lesser known Google Maps features (a.k.a. power user tips)

- Street view history

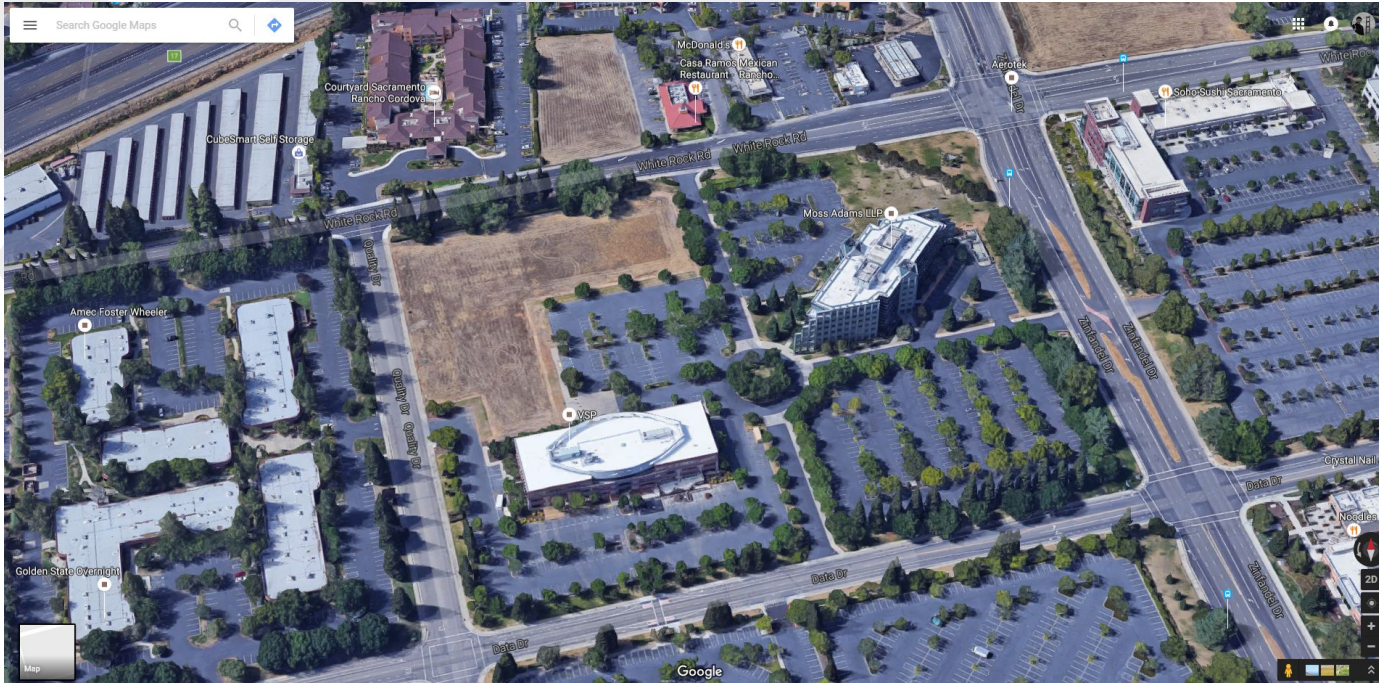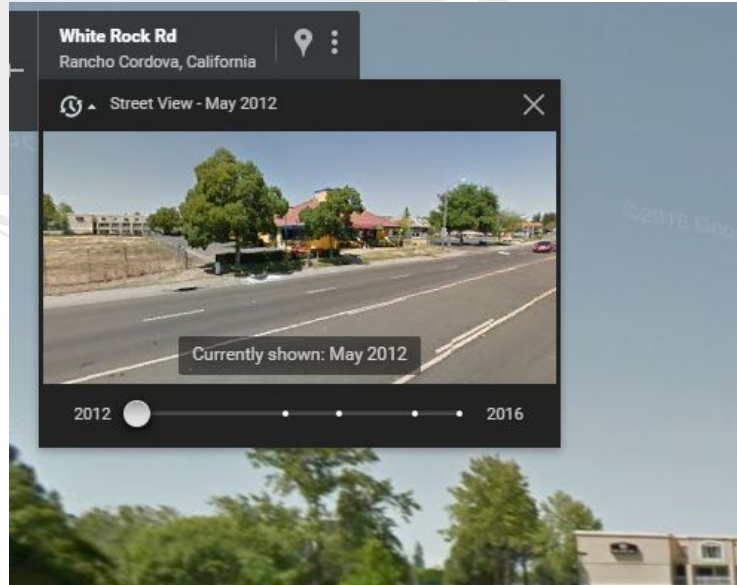# Back to Google Maps Javascript API

- Google Maps API is not maps.google.com
- Example: http://siascotch.com/retailers/
- Some features are specific to maps.google.com and you can't have them on your own map (yet)

- Official API reference: https://developers.google.com/maps/documentation/javascript/3.exp/reference

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Useful services

- Geocoding
- Places
- Directions (https://developers.google.com/maps/documentation/javascript/directions)
- Distance matrix

Shapes

- Google Maps API allows us to draw shapes (paths, polygons, etc.) on the map:

https://developers.google.com/maps/documentation/javascript/shapes

Drawing on the map

- Google Maps API allows the end user to use a Drawing Manager to get creative:

https://jsfiddle.net/api/post/library/pure/

Styling the map

- It is also possible to customize the display of the map tiles (labels, roads, mountains, etc.)
- Some websites offer predefined styles that tou can use: https://snazzymaps.com/
- There is also a wizard to help you design your own styles: https://googlemaps.github.io/js-samples/styledmaps/wizard/
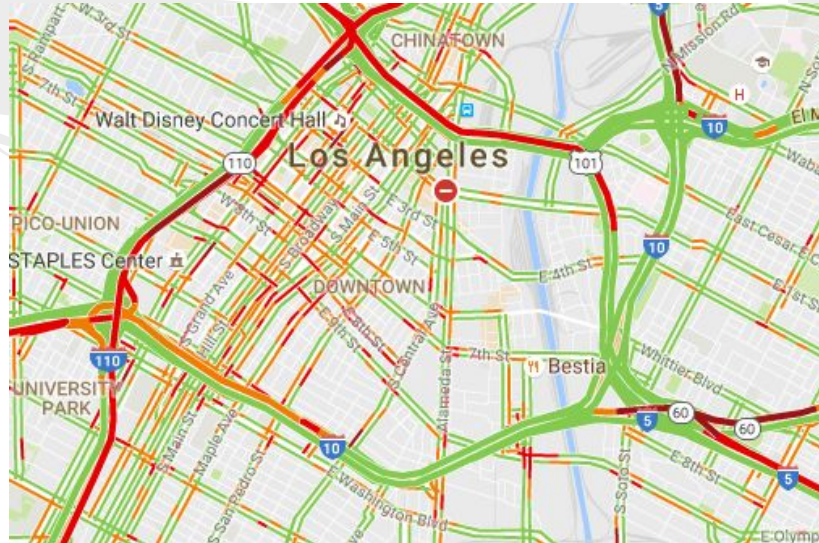
Lesser known Google Maps features (a.k.a. power user tips - part #2)

- Indoor maps for stores and buildings

Lesser known Google Maps features (a.k.a. power user tips - part #2)

- Traffic and directions, traffic predictions and transit data (also available in the API)

Angular 2 Google Maps

- https://angular-maps.com/ (alpha version)

- Components and directives to make it easy to create Maps with Angular 2

- All it does now is display a map, markers and info windows (marker pop-ups) for now

Let's take a look at some code

- http://plnkr.co/edit/YX7W20?p=preview

- Components with inputs and outputs

- Some CSS is always required with Google Maps

Angular Google Maps

- An Angular 1 library:

https://angular-ui.github.io/angular-google-maps/#!/

- The API is much bigger, with polygons, layers and many more Map possibilities covered
- Could be used with Angular 2 through ng-upgrade

Thank you!