St. Louis
Clojure

ClojureScript Reagent Tutorial

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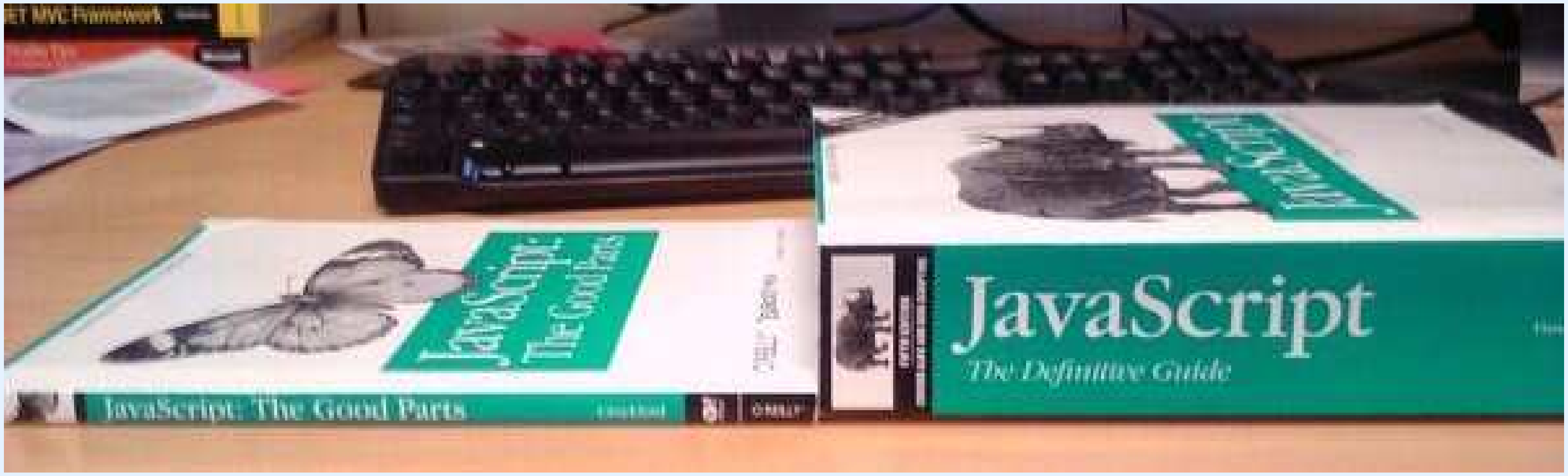
We write Clojure at The Climate Corporation, and we're hiring! Come work with us!

Why ClojureScript? Isn't JavaScript good enough?



ClojureScript lets us use Clojure, a real lisp, in place of JavaScript.

ClojureScript versus JavaScript – Namespaces

JavaScript has no native namespacing.

ClojureScript's namespacing works the same as in Clojure.

One namespace:

```
(ns my.library)
...
```

Including another namespace:

```
(ns my.library
  (:require [other.library :as other]))
...
```

ClojureScript versus JavaScript – no variable hoisting

This actually does something in JavaScript other than raise an error, which is probably not what you want:

```
function printName() {
  console.log('Hello,␣' + name);
  var name = 'Bob';
}
```

ClojureScript versus JavaScript – destructuring binds

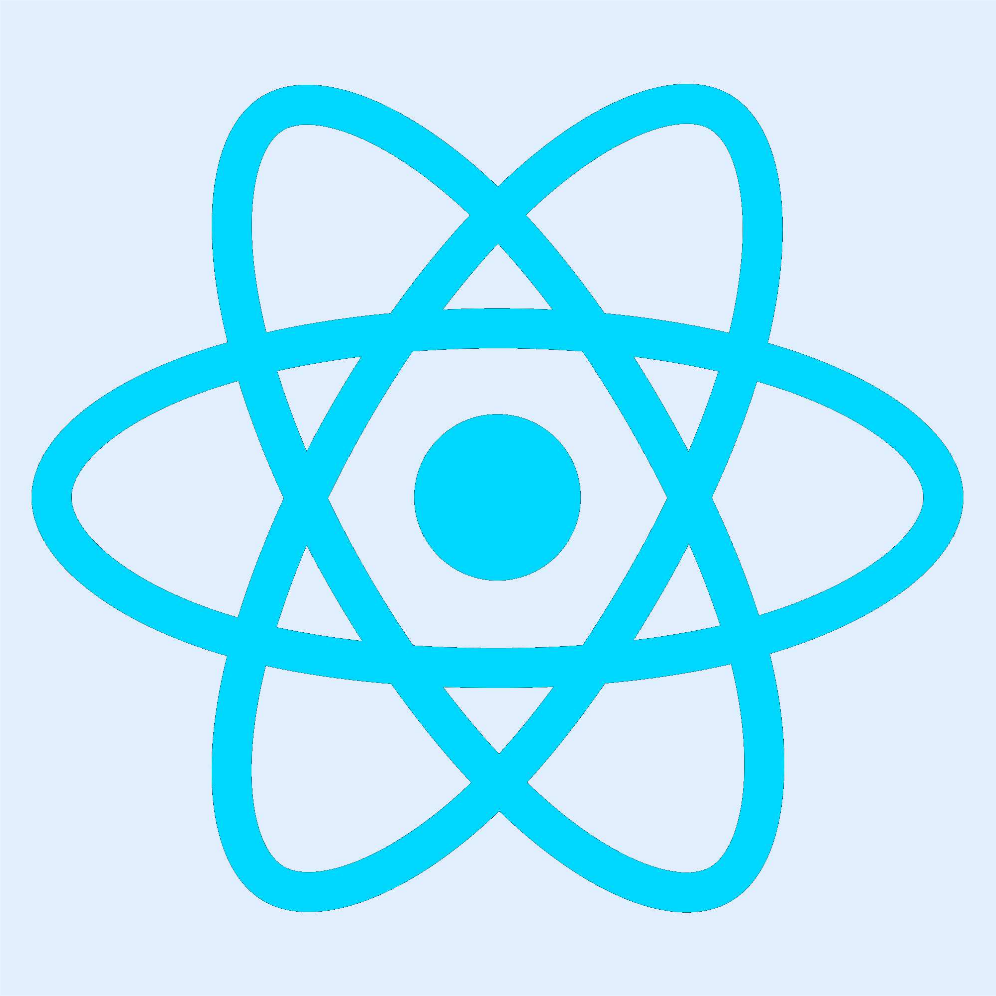
```clojure
(def m {:first "Bob"
        :middle "J"
        :last "Smith"})

(let [{:keys [first middle last]} m]
  ...)

(def color [255 255 100 0.5])

(let [[r g _ a] color]
  ...)
```

ClojureScript versus JavaScript – arbitrary keys for hash maps

```
// JavaScript -- Only string keys allowed
var m = {
  "foo": 1,
  "bar": 2
};
```

```
;; ClojureScript -- Arbitrary keys allowed
(def m { [1 2] 3
        #{1 2} 3
        '(1 2) 3 })
```

Reagent is a wrapper around React.js for ClojureScript.



Why do we want to use React.js?

- React.js comes out of Facebook originally, but is used everywhere now.
- React.js dates back to 2011.
- React.js is good at creating user interfaces.
- If you are used to MVC, React.js is the **V**.

Conclusion

Questions?