



Moda Jovem: Moving from Angular to React

Ilya Gurevich

Who am I?

- Graduate from Georgia Institute of Technology
- Frontend engineer
- Water polo player
- World traveler
- Music head



What is Loadsmart?

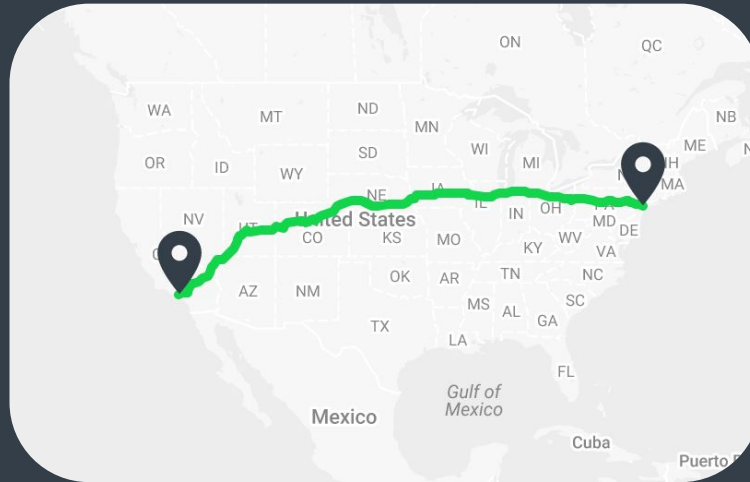
Logistics



Technology

Imagine

18,000 kg of beer from New York to Los Angeles



In the past...

Call to Broker



- Takes a long time
- Expensive



Happening now!

Instant Quoting

PICK UP
W 34th St, New York, NY, USA

PICKUP DATE
Aug. 31 Thursday

DELIVERY
Queens, NY, USA

ESTIMATED TRANSIT TIME
1 day

PICK YOUR TRUCK
Dry Van Flatbed Reefer

+ ACCESSORIALS

This price may increase in 15 min

PICK UP
Aug 31

\$1,006.45 ↑ Next day rate
Rate may increase or decrease once signed in.

SIGN UP FOR FREE

What can't be shipped?

- Automated
- Algorithmic
- Accurate



Imagine



You own a truck.

You need business.

Where do you go?

Search Load Boards

POSTINGS

SEARCH TRUCKS

POST TRUCKS

REACHERS

NEW LISTINGS

REFINE YOUR SEARCH

AGE:

MAKE:

YEAR:

LENGTH:

WEIGHT:

AVAILABILITY:

COUNTRY:

LOCATION:

SEARCH CRITERIA:

418 TOTAL RESULTS

ALL | PREFERRED | REMOVED

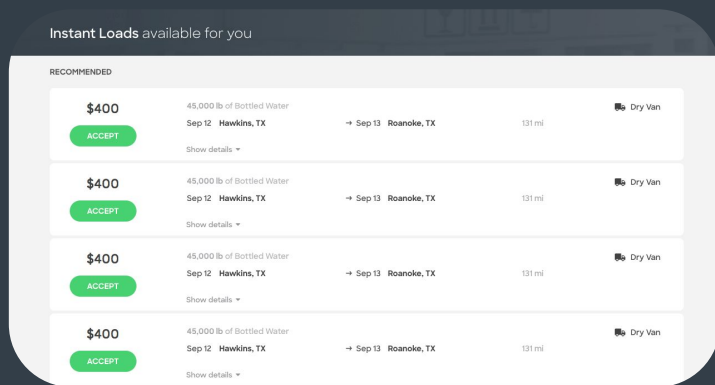
Age	Make	Year	R/P	DR-O	Origin	Type	Destination	Company	Contact	Length	Weight	Rate	CS	TR	Factor
00001	1213	VF	P	27	Boston, TX	1,100	Midland, TX	Midland Trucking	Midland Trucking	40'-0"	-	30T	100	100	✓
00001	1213	VF	P	41	Corpus TX	1,100	Corpus TX	Corpus TX	Corpus TX	40'-0"	-	30T	100	100	✓
00001	1213	VF	P	39	Roundrock, TX	1,100	Roundrock, TX	Roundrock, TX	Roundrock, TX	40'-0"	-	30T	100	100	✓
00001	1213	VF	P	40	Houston, TX	1,100	Houston, TX	Houston, TX	Houston, TX	38'-0"	\$9,000.00	-	100	100	✓
00001	1213	VF	P	40	Corpus TX	1,100	Corpus TX	Corpus TX	Corpus TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	34	Houston, TX	1,100	New Orleans, LA	New Orleans, LA	New Orleans, LA	40'-0"	30,000.00	-	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,100	Midland, TX	Midland, TX	Midland, TX	40'-0"	-	30T	100	100	✓
00002	1213	VF	P	40	Houston, TX	1,									

- Confusing
- Overwhelming



Happening now!

Customized Loads



- One-click interaction
- Specifically tuned for the user



Book a truck in seconds.

On-demand truckload shipping for your business.
No need to wait. Get an instant quote now.

FROM Pick-up address	TO Delivery address	 Dry Van	 Reefer	QUOTE
-------------------------	------------------------	---	--	--------------

WALL STREET
JOURNAL

"Loadsmart is offering new technology to facilitate booking and the tracking of goods through supply chains."

Forbes

"First to provide a win/win between shippers and carriers to become a disruptor in the freight market."

FREIGHTWAVES

"Loadsmart differs from other competitors in this niche by investing heavily in its engineering division."

MARKETS
INSIDER

"It demonstrated dramatic improvements in the time to process a spot shipment - going from 5 hours to just 15 minutes on average."



Gartner
Cool
Vendor
2018

Loadsmart was named a Cool Vendor by Gartner in Intelligent Supply Chain Execution Technologies

Loadsmart was recognized as one of five companies providing emerging supply chain execution technologies. Download the report and see how we offer the best service.



Download Full
Intelligent Supply
Chain Report

The old way.



Calls to broker
Wait fr-
to book
Limited
visibility
Unreliable
carriers

The smart way.



Instant
quotes
Instant
booking
Real time
tracking
High quality
carriers

Accept loads with one click

Loadsmart is your new dispatcher.
Tailored lanes based on your location.



First name Last name

Email

Create password

Company name

MC

DOT

MC number

SIGN UP FOR FREE

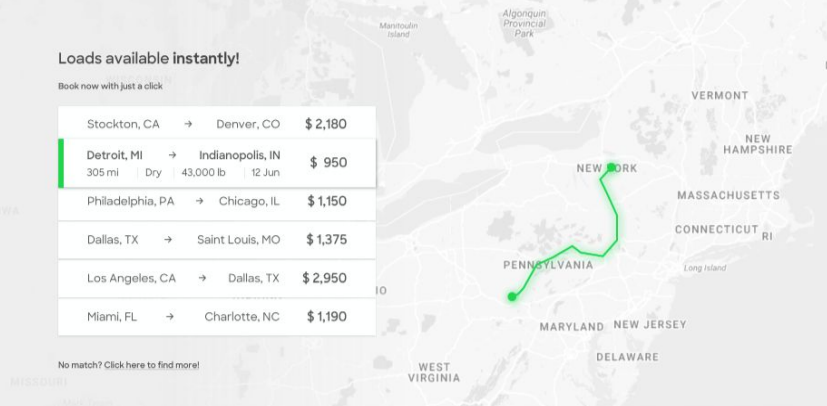
By clicking Sign Up, you agree to our User Agreement.

Loads available instantly!

Book now with just a click

Stockton, CA	→	Denver, CO	\$ 2,180
Detroit, MI	→	Indianapolis, IN	\$ 950
Philadelphia, PA	→	Chicago, IL	\$ 1,150
Dallas, TX	→	Saint Louis, MO	\$ 1,375
Los Angeles, CA	→	Dallas, TX	\$ 2,950
Miami, FL	→	Charlotte, NC	\$ 1,190

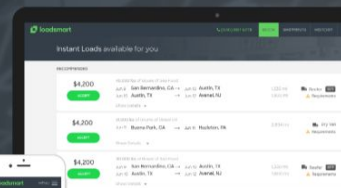
No match? Click here to find more!



Instant loads

Booking a load should be a hassle-free process.

Download our app or access our website to see instantly bookable loads. When you find a match, just click accept and the job is yours.



Alice / ... loadsmart Search anything

Shipments Quotes Carriers Shippers Other Ilya

Shipment #9257475 P-DTNA | BOL - | SHIPPER REF 49853162

DETAILS DETAILS (old) SOURCING DOCUMENTS SUGGESTED CARRIERS ACCOUNTING

Joliet, IL → Swedesboro, NJ 771 miles ARCHIVED REBOOK CANCEL

Wed 10/17/18 - 12:00 Fri 10/19/18 - 08:00

DRV 42000 lbs of Auto Parts

STATUS: OTD LOCATION: Swedesboro, NJ Last ping: Fri 10/19/18 09:30 ADD CHECK

Joliet, IL IN Wed Oct 17, 13:00 OUT Wed Oct 17, 14:30 Swedesboro, NJ IN Thu Oct 18, 20:40 OUT Fri Oct 19, 09:30

LM REP - CARRIER REP Matthew Awad AM REP Stephen Johnson AM VA -

MT No empty truck location reported En route to pickup on Wed 10/17/18 at 14:30 SET EN ROUTE

PU Wed 10/17/18 at 12:00 Confirmed by Monica C. on Tue Oct 16, 2018, 15:13

HENDRICKSON BUMPER & amp; TRM 501 CATON FARM RD Joliet, IL 60434

Notes PO# DTNA12357588 PENSKEN 49853162 All communication to the shipper and receiver must flow through Loadsmart. Appointments must be met and cannot be changed. Failure to cooperate may result in termination from the Loadsmart platform. All loads must be sealed.

Detention Rules: Blind BOL Drop Trailer Scale Ticket

CHECK IN Checked in: Wed Oct 17, 13:00 miles away Late CHECK IN

CHECK OUT Checked out: Wed Oct 17, 14:30 Late CHECK OUT

DEL Fri 10/19/18 at 08:00 Confirmed by Monica C. on Tue Oct 16, 2018, 16:13

BRIDGEPORT PDC 1140 COMMERCE BLVD Swedesboro, NJ 08085

Warehouse Info 07:00 AM - 10:00 PM Appointment

Parties details

CARRIER COAST CONNECTION INC WOOD DALE, IL (847) 288-0911 RATE CARRIER

SHIPPER P-DTNA Penske API (646) 887-6278

DISPATCHER Paul - (847) 288-0911 DRIVER Select... Add new

24h DISPATCH (847) 288-0911

CARRIER PRO SEAL NUMBER -

TRAILER NUMBER 5343 TRACTOR NUMBER 141

PLANNER No Planner name No Planner phone number No Planner Email

SHIPPER REQUIREMENTS All communication to the shipper and receiver must flow through Loadsmart. Appointments must be met and cannot be changed. Failure to cooperate may result in termination from the Loadsmart platform.

SHIPPER REF BOL

Internal Tools

- Google Maps Tracking
- Slack Integration
- Bria Phone Client
- Real-time Shipment Management



Frontend Stack



3rd Party Tools



SENTRY



heroku



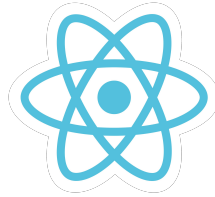
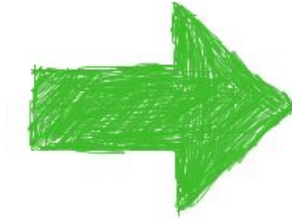
logentries™



New Relic®



Angular to React





"Lead Angular Expert after announcement about moving the project to React.js"

Jan Matejko

1862



Why we wanted to change



The Programmer Answer

We want a framework that's faster
and simpler to develop with.



The Honest Answer?

We just wanted to update our
framework because everyone else was doing it.

Also known as **hype driven development**



But Mainly?



Just kidding

We did our research



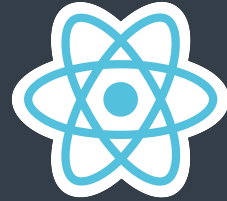
Research



Angular2



VueJs



React



Time For Some Reading

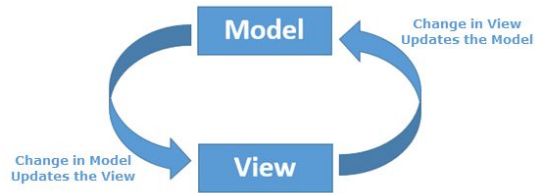


Angular 2



Pros

- Two-way data binding
- Component-based
- Better speed and performance than Angular 1
- AOT (Ahead-of-Time compilation)
- Directives and filters are awesome
- Unit test friendly



Angular 2, 4, 6, 7?



Cons

- Typescript (debatable)
- Unclear documentation
- Really high learning curve
- “**Angular 2 is terrible**”
- Regular DOM
- Large
- Versions keep on changing, unclear usage
- Verbose and complex



VueJS



Pros

- Lightweight
- Fast build process
- Angular-type directives
- Component based
- Virtual DOM
- Two-way binding on inputs
- Amazing documentation
- Creator is active in the developer community
- Arguably faster than React in some cases



VueJS

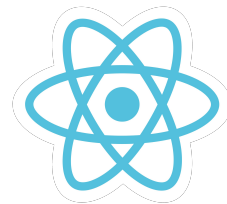


Cons

- Semi-confusing syntax
- Small community (harder to hire)
- Free-form conventions
- Majority of developers in the beginning were Chinese
- Caused a language barrier
- Lack of common plugins and components



React

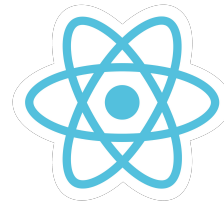


Pros

- Component-based
- Virtual DOM
- Light-weight
- Seamless development experience
- Good testing compatibility
- Huge community
- Constant meaningful and informative updates
- **React-friendly NPM/Yarn community**



React



Cons

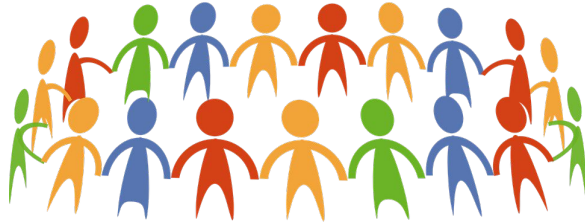
- React isn't a framework
- JSX learning curve
- Documentation could be better
- Nested props callbacks
- Update values on forms manually (FORMS!)
- State management is potentially difficult



Why we ultimately chose React



React over VueJS



VueJS is still too small

React has a larger community

React is better for large applications



But...

VueJS is growing

Definitely a framework to look forward to



Immediate Roadblocks



webpack
MODULE BUNDLER



HARD



Other Immediate Roadblocks...



webpack
MODULE BUNDLER



Questions to Question

How to do proper form validation?

Which HTTP client to use?

What even is JSX?

ES6? ES7??

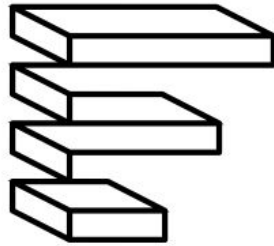


These things take time to learn...

- React Novice
 - 3-5 days
- React Expert
 - Two months

You are always learning!!





Formik



AXIOS



Immediate Simplifications

Angular is a monster compared to React

Files are much more organized

Small and fast build size



Bad things

Nested Prop Callbacks

Updating State



Updating State

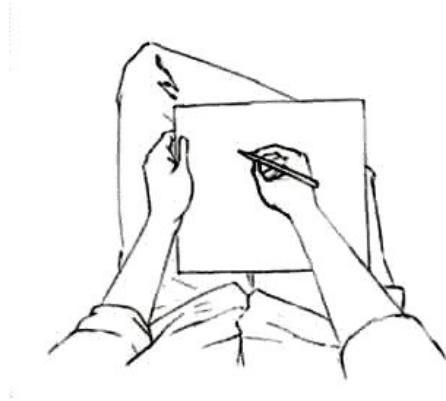
- Updating components in react can be tricky
- Component Lifecycle
 - ComponentDidUpdate
 - ComponentWillUpdate (unsafe)
 - ComponentWillReceiveProps (unsafe)
 - ComponentDidMount
 - ComponentWillMount
 - ShouldComponentUpdate
 - Etc...
- Memoization?
- Can only be learned with experience over time



Nested Prop Callbacks

One function - showAccepted()

- List
 - LoadsControl
 - Loads
 - WebList
 - AcceptDialogWeb
 - ConfirmationDialog
 - DriverLocationDialog



That's 7 different components



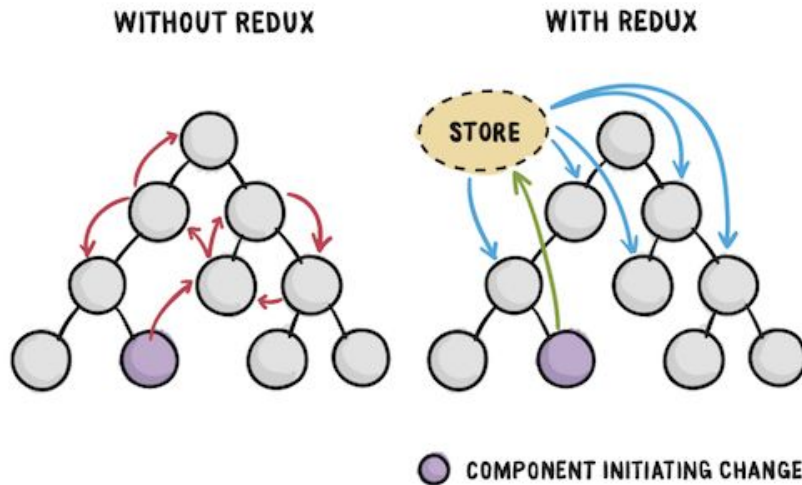
The Solution?

Use Redux



What's Redux?

- Retrieve and update props globally to be accessible via a provider from any component.
- Re-renders component in real time without memoization
- No longer necessary to use nested props callbacks!



Redux Difficulties

- Really high learning curve
- May take at least a week or two to learn properly + learning React
 - Delays future development if on a time crunch
- Nomenclature can be obscure
- Feels very heavy
- MobX as an alternative?

Would NOT recommend using Redux without intermediate knowledge of React first



Lots of Setup for Redux

- Reducers + Combined Reducers
- Action creators
 - Loading, error, success state
- Providers
- Store configuration
- Redux devtools
- Middleware

```
import search from '../containers/Search/reducers'
import shipmentDashboard from '../containers/ShipmentDashboard/reducers'
import suggestedShipments from '../containers/SuggestedShipments/reducers'
import shipmentTimeline from '../containers/ShipmentTimeline/reducers'
import { createReducer } from '../containers/Carrier/reducers/createReducer'
import shootCarrier from '../containers/ShootCarrierV2/reducers'
import loadManagement from '../containers/LoadManagement/reducers'
import loadGetTasks from '../containers/LoadManagementTasks/reducers'
import portfolio from '../containers/CarriersPortfolio/reducers'

export default combineReducers({
  alert,
  createReducer,
  charges,
  dialogs,
  driver,
  loading,
  loadManagement,
  loadGetTasks,
  payments,
  portfolio,
  rateConfirmation,
  routing, routerReducer,
  search,
  setShipment,
  shipmentDashboard,
  shipmentTimeline,
  shootCarrier,
  suggestedCarriers,
  suggestedShipments,
  timezone,
  shipmentCommunication,
  toggleDialogs,
  toggleTab,
})

import { browserHistory } from 'react-router'
import { createMiddleware } from 'react-router-redux'
import { createStore, applyMiddleware, compose } from 'redux'

import analytics from './utils/analytics'
import { createMiddleware } from './utils/middleware'
import createSagaMiddleware from 'redux-saga'
import rootSaga from './sagas/index'

import rootReducer from './reducers'

const sagaMiddleware = createSagaMiddleware()
const composeEnhancers = window.__REDUX_DEVTOOLS_EXTENSION_COMPOSE__ || compose
const middleware = [createMiddleware(browserHistory), thunk, sagaMiddleware, analytics, sagalMiddleware]
const configStore = { initialState, composeEnhancers(applyMiddleware(...middleware)) }
const store = createStore(rootReducer, initialState, composeEnhancers(applyMiddleware(...middleware)))

if (module.hot) {
  // Enable Webpack to hot replace reducers
  module.hot.accept('../reducers', () => {
    const nextReducer = require('../reducers').default
    store.replaceReducer(nextReducer)
  })
}

sagaMiddleware.run(rootSaga)

return store

const store = configureStore()
export default store
```

```
import { handleActions } from 'redux-actions'

export const charges = handleActions({
  SET_INCOMES: (state, action) => ({ ...state, incomes: action.payload }),
  SET_OUTCOMES: (state, action) => ({ ...state, outcomes: action.payload }),
  SET_CHARGE: (state, action) => ({ ...state, charge: action.payload }),
  SET_CHARGE_ERROR: (state, action) => ({ ...state, chargeError: action.payload }),
  SET_CHARGE_SUBMITTING: (state, action) => ({ ...state, isSubmitting: action.payload }),
  CLEAR_CHARGE: state => ({ ...state, charge: undefined, chargeError: undefined }),
},
(),
)

import { Provider } from 'react-redux'
import ShootCarrierButton from './ShootCarrierButton'
import store from '../store/configureStore'

class ShootCarrier extends React.Component {
  render() {
    return (
      <Provider store={store}>
        <ShootCarrierButton {...this.props}>{this.props.children}</ShootCarrierButton>
      </Provider>
    )
  }
}

export default ShootCarrier

export const metricsMiddleware = () => next => action => {
  try {
    if (!action.payload) return next(action)

    if (action.payload.metrics === true) {
      sendMetric(action)
    }
    delete action.payload.metrics
    next(action)
  } catch (error) {
    /* eslint no-console:0 */
    console.error(error)
  }
}
```



Good things

JSX with ES6/7 is awesome



Why?

- Conditional rendering is simple
- HTML + Javascript makes sense
 - Functions in markup
- Testing with jest is easy
- Not restricted to template language
- Destructuring, object rest spread, etc



Long-term implications

- We have some serious tech debt.
- We haven't converted everything from angular to react.
- Rebuilding the whole website from scratch is **time-consuming**.
- Given the nature of the industry a new framework will come along that completely changes everything anyways.



Final Thoughts

Was it worth it?



Yes, definitely





**THANK YOU
FOR YOUR TIME**