



# React Native in the Wild

CodeStock 2017

@joshgretz  
github/jgretz





# Josh Gretz

@joshgretz

github/jgretz

CTO @ Truefit



Father of 3 boys



Maker of Stuff



React Fan Boy





I KNOW  
IM AWESOME  
BUT PLEASE  
NO FLASH  
PHOTOGRAPHY

**Caveat:**

We are going to cover a LOT of  
libraries,  
tricks and techniques.

These slides are available (also in  
PDF) at:

[https://github.com/jgretz/  
reactnativeinthewild](https://github.com/jgretz/reactnativeinthewild)

## I'm assuming:

- You have some exposure to React
- You have seen ES6
- You have used NPM
- You have dabbled in some type of mobile development





## WHAT WE ARE GOING TO COVER

- Why
- Redux and Friends
- User Interaction
- Yarn
- Offline Mode
- Testing



the

**WHY**

# THE PARADOX OF CHOICE



Autonomy and Freedom of choice are critical to our well being, and choice is critical to freedom and autonomy. Nonetheless, though modern *[developers]* have more choice than any group of people ever has before, and thus, presumably, more freedom and autonomy, we don't seem to be benefiting from it psychologically.



»

**How far does the rabbit hole go ?**

# YARN

It's Time to Tame NPM



## Yarn

Yarn is a fast, reliable,  
and secure dependency  
management tool ...

It replaces the npm cli on  
your machine





# Why Use Yarn?



**Install Reliability**



yarn.lock ~= npm shrinkwrap



**Speed**



Parallel Installation  
&  
Caching



**Friendly**



Clean UI  
Useful Additions

# REDUX AND FRIENDS

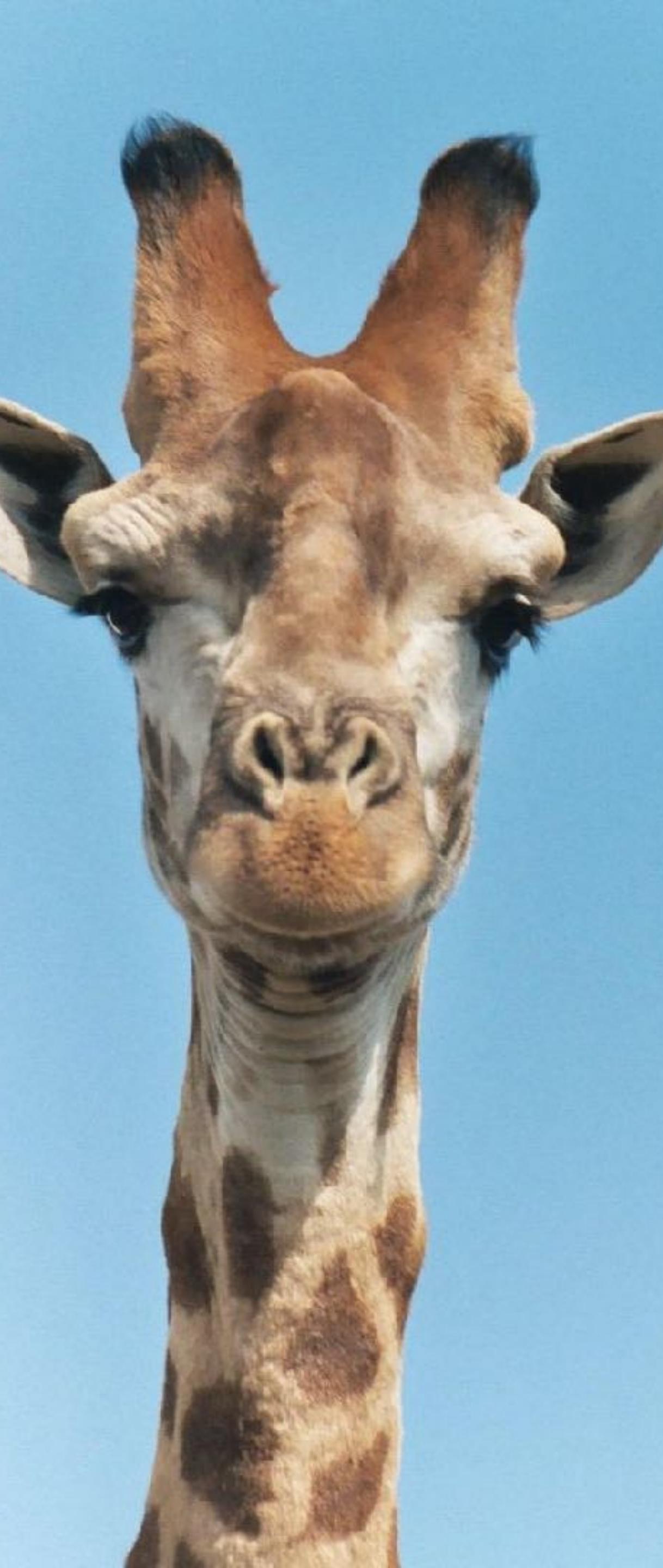
Work with your data  
and keep yourself sane



## Redux

Redux allows you to  
create a predictable state  
container





# Redux

- All state lives in Redux
- Made up of Actions and Reducers
- React-Redux connects to React
- Redux exposes middleware hooks

## **Redux State:**

```
{  
  badges: 10,  
  seatsTaken: 0,  
}
```

## **Reducers:**

```
badgeReducer = (state, action) => {  
  switch (action.type) {  
    case CHECKIN:  
      return state.badges - 1;  
    }  
  }  
}
```

## **Redux State:**

```
{  
  badges: 10,  
  seatsTaken: 0,  
}
```

## **Reducers:**

```
badgeReducer = (state, action) => {  
  switch (action.type) {  
    case CHECKIN:  
      return state.badges - 1;  
    }  
  }  
}  
}
```

```
seatReducer = (state, action) => {  
  switch (action.type) {  
    case CHECKIN:  
      return state.seatsTaken + 1;  
    case BACKDOOR:  
      return state.seatsTaken + 1;  
  }  
}
```

## **Redux State:**

```
{  
  badges:10,  
  seatsTaken: 0,  
}
```

## Action:

```
{  
  type: CHECKIN,  
}
```

## Redux State:

```
{  
  badges: 9,  
  seatsTaken: 1,  
}
```

## Reducers:

```
badgeReducer = (state, action) => {  
  switch (action.type) {  
    case CHECKIN:  
      return state.badges - 1;  
  }  
}  
}  
}
```

```
seatReducer = (state, action) => {  
  switch (action.type) {  
    case CHECKIN:  
      return state.seatsTaken + 1;  
    case BACKDOOR:  
      return state.seatsTaken + 1;  
  }  
}
```

## Action:

```
{  
  type: BACKDOOR,  
}
```

## Redux State:

```
{  
  badges: 9,  
  seatsTaken: 2,  
}
```

## Reducers:

```
badgeReducer = (state, action) => {  
  switch (action.type) {  
    case CHECKIN:  
      return state.badges - 1;  
    }  
  }  
}  
}  
}
```

```
seatReducer = (state, action) => {  
  switch (action.type) {  
    case CHECKIN:  
      return state.seatsTaken + 1;  
    case BACKDOOR:  
      return state.seatsTaken + 1;  
    }  
  }  
}
```

---

# »» Redux Middleware



## Redux Thunk

Allows you to return functions  
from action creators to delay  
the creation of the action

## Redux Promise Middleware

Allows you to return a promise  
that eventually resolved to an  
action from an action creator

## Redux Dev Tools

Plugin to Chrome to  
allow a live view into the  
redux container





## IMMUTABLE

Simplifies creating and manipulating read-only, persistent data store

The last thing you wanted any programmer to do is mess with internal state ...

- Alan Kay (creator of Smalltalk)





## Reselect

A simple “getter” library designed to abstract the slicing of data from the redux store

## Axios

a npm package that provides a simple wrapper around javascript's fetch





DEMO  
TIME

## I'm weird, but I like it:

- Feature > Type > File
- File Generators



Стул-Лавчени  
коопеначефле



DEMO  
TIME

# OFFLINE MODE

React to the  
Real World



## NetInfo

NetInfo is a react library  
that provides callbacks  
when network state  
changes



## Redux Persist

Persists and hydrates the redux store





## AsyncStorage

simple, unencrypted, asynchronous,  
persistent, key-value storage



# Realm

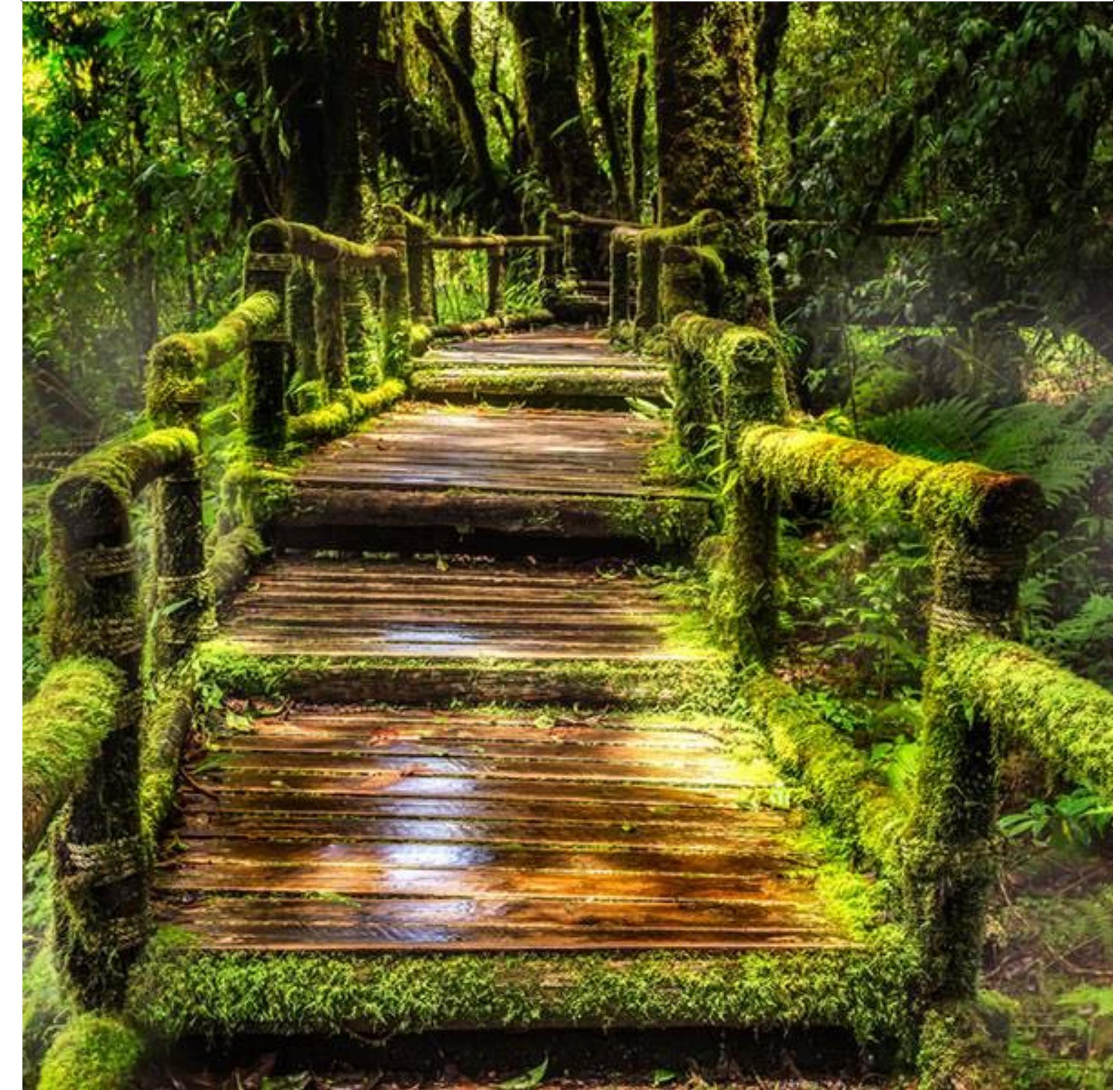
Open Source, crazy fast local object oriented database

**D E M O  
T I M E**



# USER INTERACTION

Delight Your Users





# React Navigation

Learn Once,  
Navigate Anywhere

## Lists

Everyone's first concern

ReactNative can display  
large sets of data quickly  
and smoothly



## Redux Form

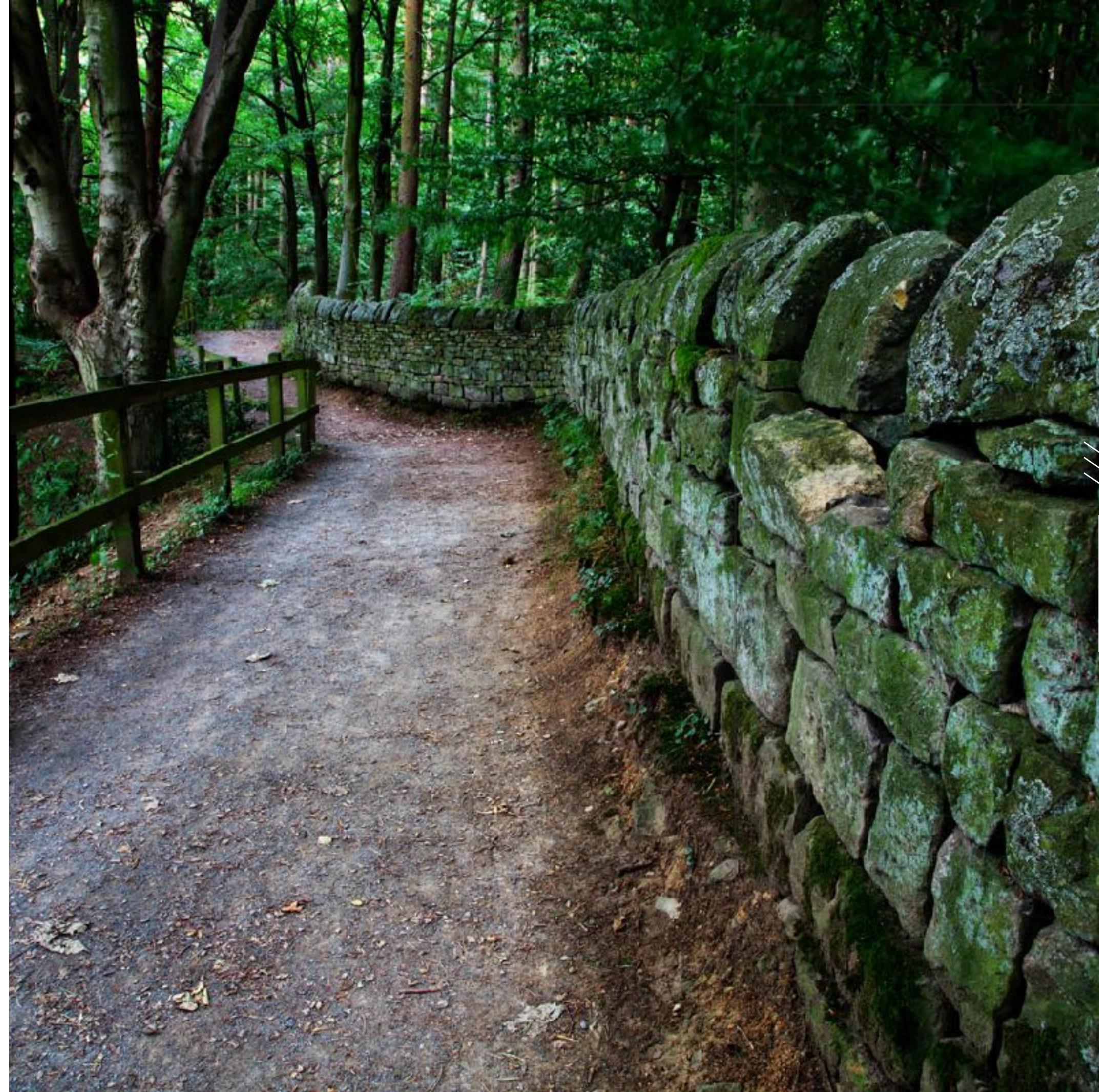
Painless management of  
the form state





## **Styling**

Make your app useful, usable, and compelling



## Class Autobind

Remind your class what 'this' means



D E M O  
T I M E

# TESTING

Make sure it's right  
every time





## Jest

“Painless” javascript  
testing with “zero”  
configuration

# Mockaroo

Quickly generate large amounts of mock data to test your app



## buddybuild

A straight forward CI and mobile deployment tool enabling you to get your app in your testers / users hands quickly





D E M O  
T I M E



## WHAT WE COVERED

- Why
- Redux and Friends
- User Interaction
- Yarn
- Offline Mode
- Testing



Thank You!

[https://github.com/jgretz/  
reactnativeinthewild](https://github.com/jgretz/reactnativeinthewild)

@joshgretz