



React Native in the Wild

ThatConference 2017

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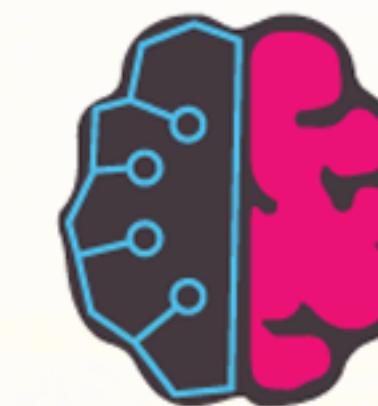
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Josh Gretz

@joshgretz

github/jgretz

CTO @ Truefit



Father of 3 boys



Maker of Stuff



React Fan Boy





Get The Code:

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



Decoupled, but dependent concepts





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

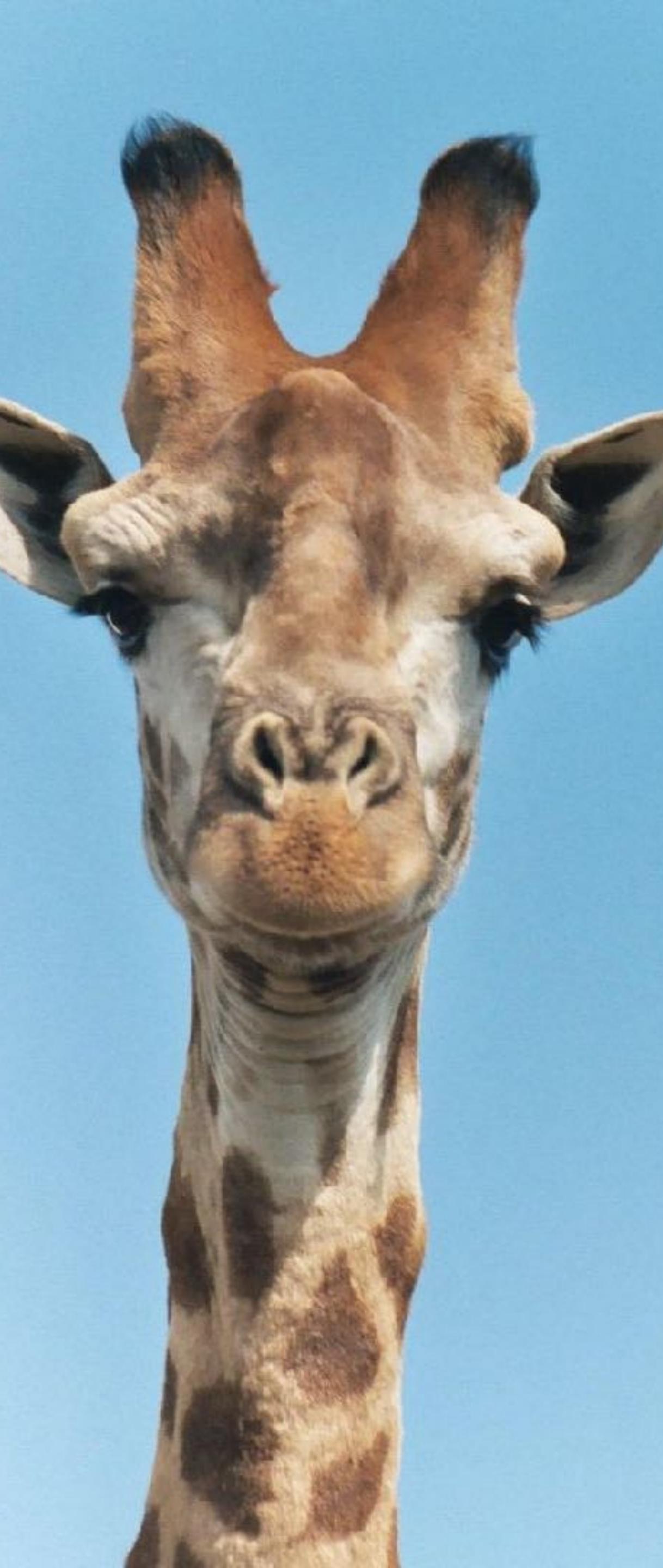
Work with your data
and keep yourself sane



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

**It's almost time for a demo, but ...
I'm different, but for a reason:**

- Feature > Type > File
- File Generators





DEMO
TIME

Redux Dev Tools

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

Remote Redux Dev Tools

Plugin to redux dev tools
to show tools in their
own UI





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

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



Firebase

“Document Tree” database

Automagically everywhere ...



Realm

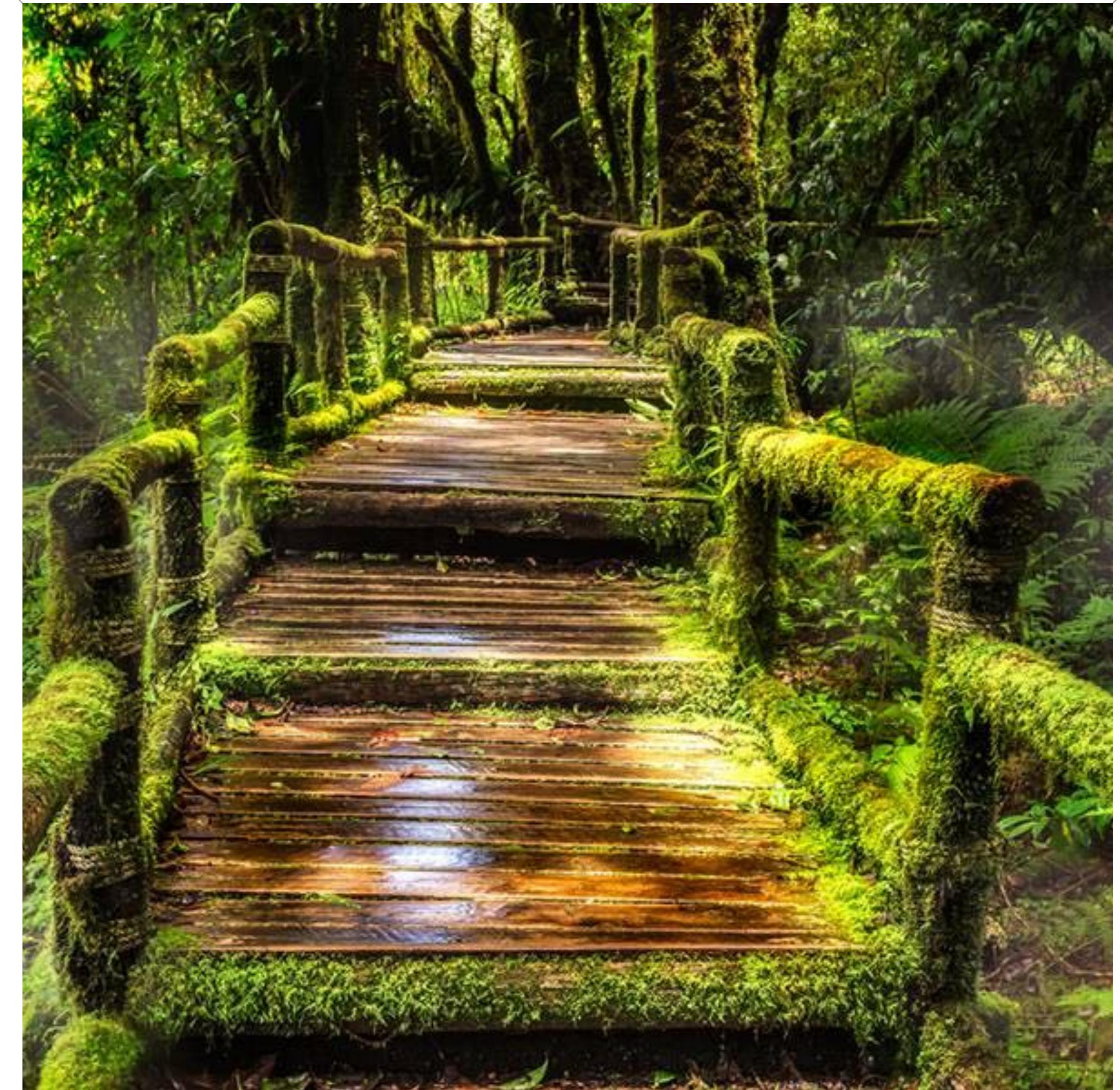
Open Source, crazy fast local object oriented database

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



USER INTERACTION

Delight Your Users





React Navigation

Learn Once,
Navigate Anywhere



Truefit React

Navigation

Now for a quick commercial ...

Lists

Everyone's first concern

ReactNative can display
large sets of data quickly
and smoothly



Redux Form

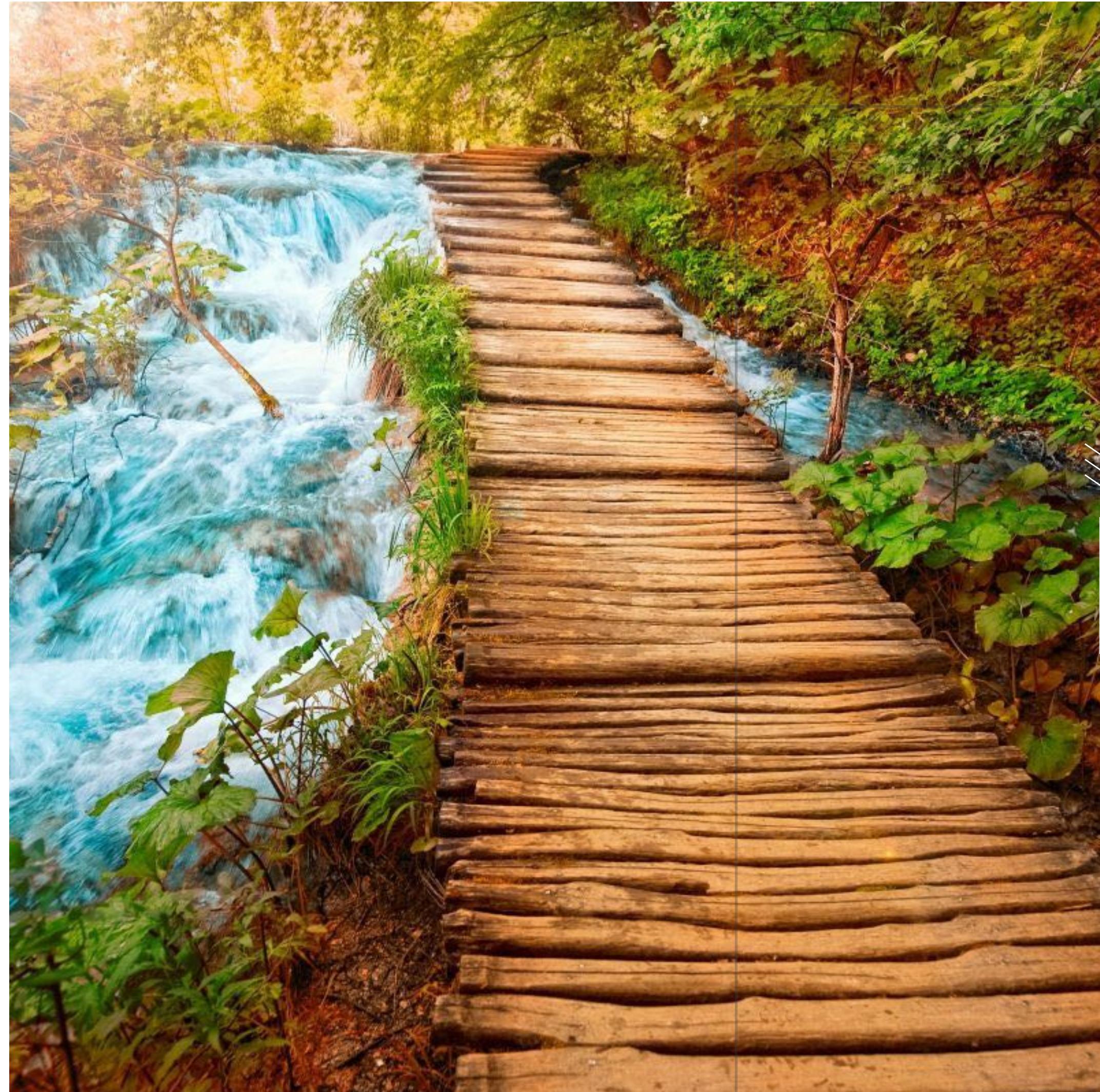
Painless management of
the form state





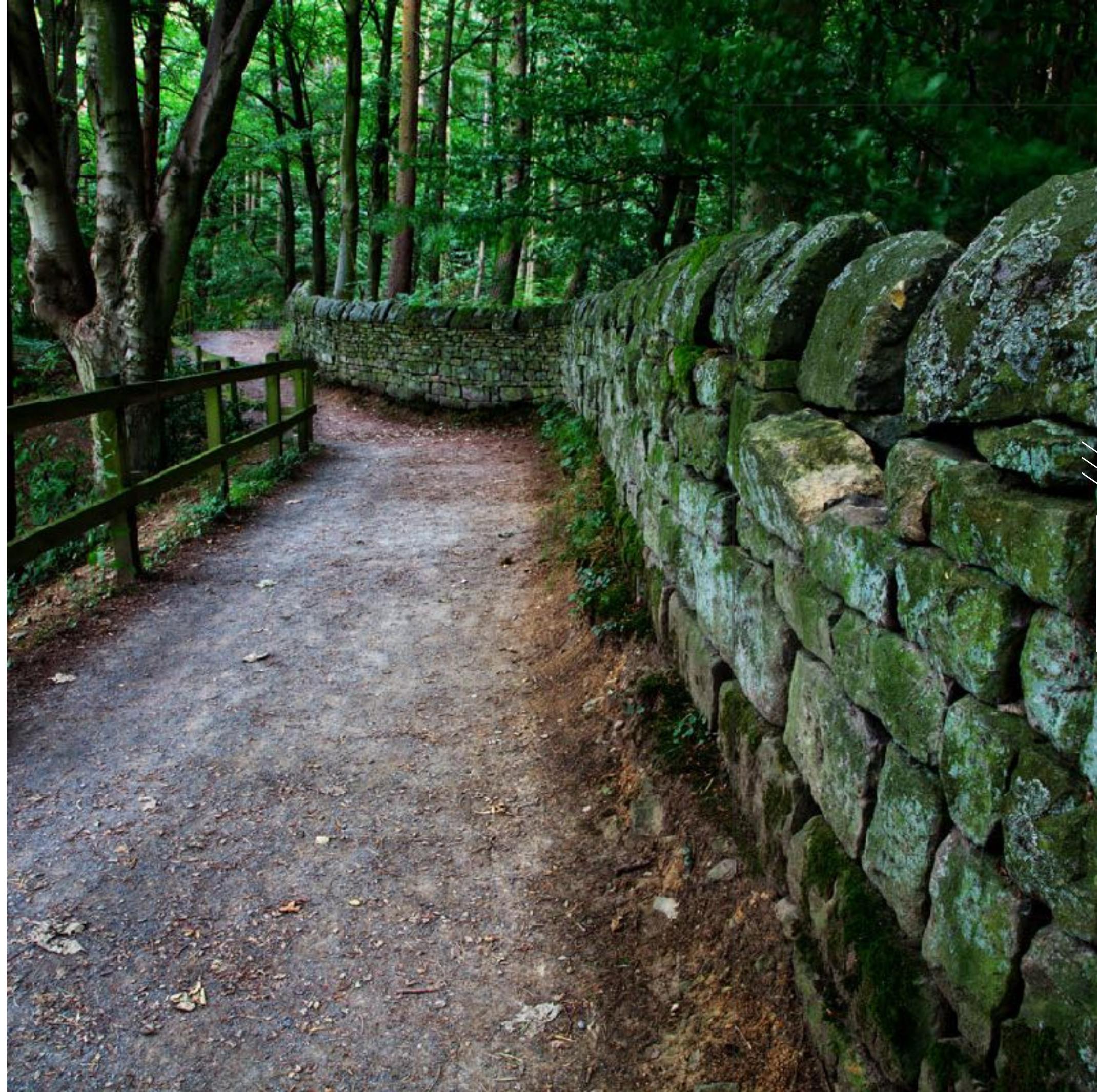
Styling

Make your app useful, usable, and compelling



UI Frameworks

- Nachos
- NativeBase
- Shout'em Toolkit
- React Native Elements
- Others ...



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



Cavy

Cross-platform
integration test
framework for React
Native

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

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- Offline Mode
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Thank You!

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

@joshgretz



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SEE YOU NEXT YEAR!

AUGUST 6 - 8, 2018