native modules for react native

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our evening

- * why would I react natively?
- m what is less than desirable about reacting natively?
- when to go native, and when to react
- % make your own native module
- ## bonus things that make react native development better

who am i?

brandon johnson.

an independent software engineer. formerly of *space150*, currently of *my own thang*.

why react native?

- you can write your native app predominantly in js
- which means you might be able to iterate quicker
- which might shorten project completion times
- which might save money
- but oh wait you're still building native apps!

when does react native make me sad?

when does react native make me sad?

build tools + code signing

when does react native make me sad?

one shared thread for UI and logic

when does react native make me sad?

native/javascript package dichotomy

javascript modules vs native modules

- if you need access to a platform API, you'll need to use a native module
- there are tons of good native modules out there
- but many of the most important ones are already installed with react-native
- expo (via CRNA) provides other awesome "missing" modules, but there's a catch

javascript modules vs native modules

expo and crna: potential vs. reality

javascript modules vs native modules bridging

React Native Architecture

The JavaScript Realm

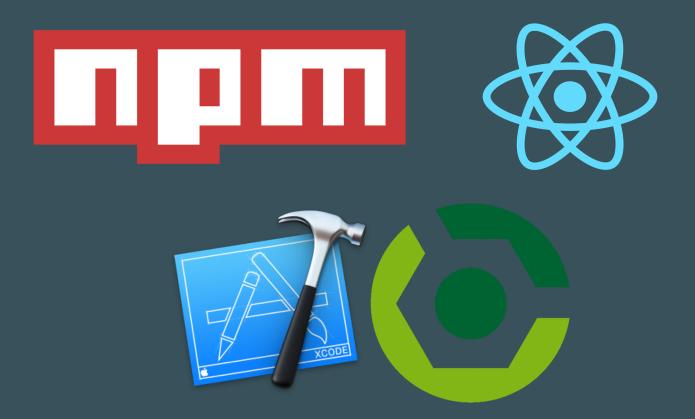
The Bridge

The Native Realm

JavaScript JSCore (VM) Single Thread ObjC+Swift / Java Main UI Thread Other BG Threads

(click img for source)

javascript modules vs native modules linking



javascript modules vs native modules <u>linking on iOS</u>

- sometimes third-party code isn't configured/built correctly
- sometimes node packages are out of date
- sometimes CocoaPods aren't installed
- sometimes packages aren't correctly initialized in your app
- sometimes stuff just h*ckin doesn't exist

javascript modules vs native modules <u>linking on android</u>

- sometimes third-party code isn't configured/built correctly (same as it ever was)
- sometimes node packages are out of date
- sometimes Maven packages aren't installed
- sometimes packages aren't correctly initialized in your app
- sometimes you haven't accepted a license agreement

let's make a native module!

bonus round!

- clean-react-native-app
- <u>awesome-react-native</u>
- expo (a really cool tool even though i kinda poked fun at it)
- react native newsletter via infinite red
- i can find you a ton of others!

bye now!

- i'm @brandon_mn on twitter
- always open to chat p, get coffee s
- if you see me at events/coco downtown/coffee shops, say hi!
- keep ~ *reacting natively* ~ friends!

