



Brian Papa

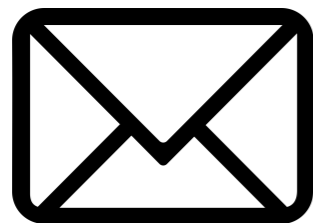
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@bpapa

# WHAT'S theSKIMM?

theSkimm makes it easier to be smarter by fitting news and information into people's existing **routines**

Routines



Voice



# theSKIMM AUDIENCE

> **3.5 million** active, highly engaged subscribers

> **12,000 Skimm'bassadors** in 20+ cities

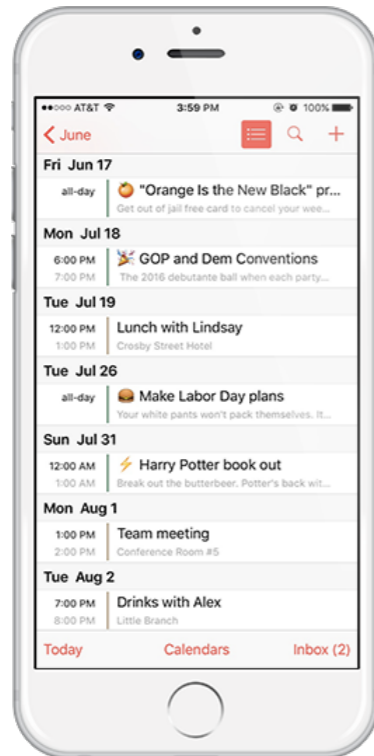
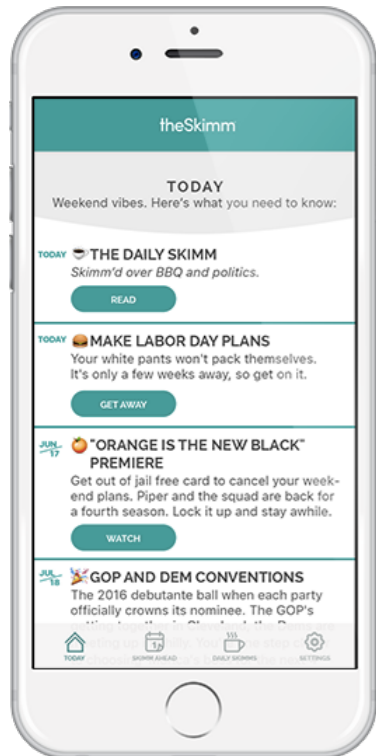
Oprah, Stephen Colbert, Michelle Obama, and  
more are Skimm'rs

# theSKIMM PRODUCTS



## DAILY SKIMM

what just happened and what people are talking about **today**.




## SKIMM AHEAD

what's to come in the **future**.

# theSKIMM APP

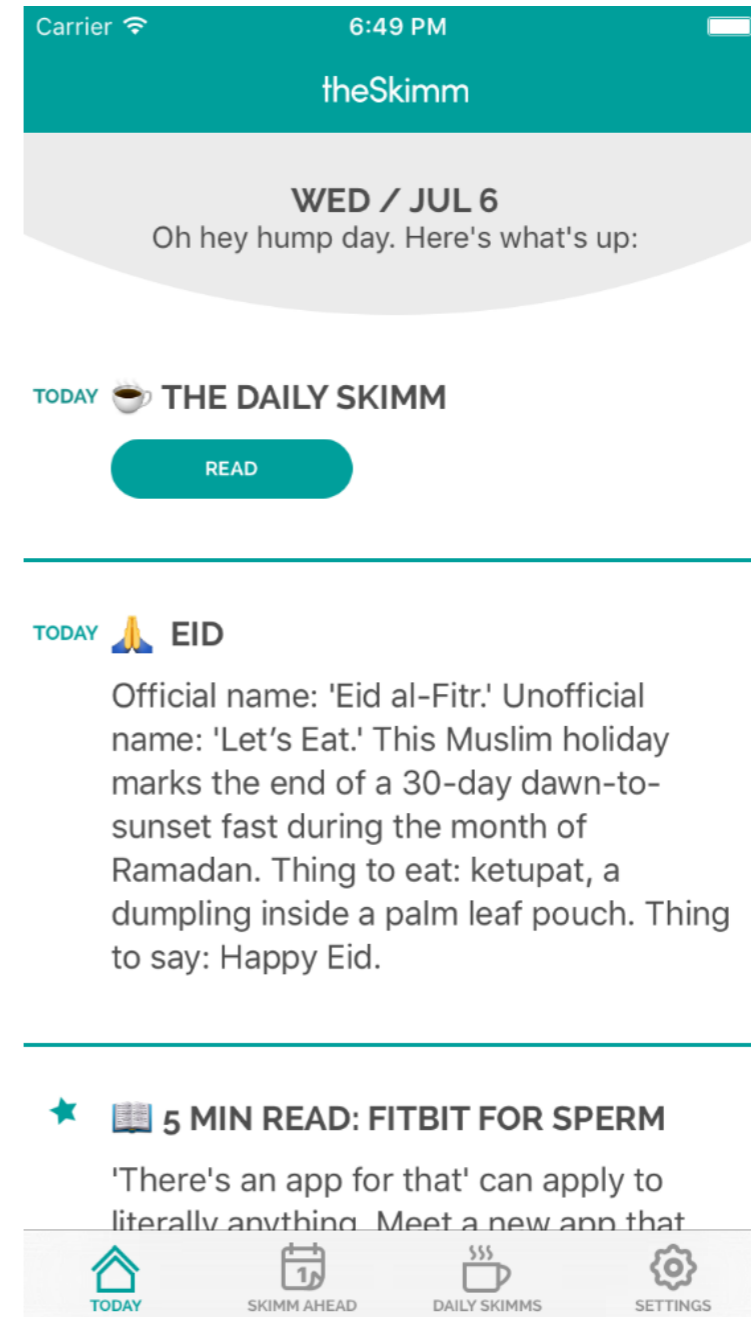
- Launched in April, featured as “Best Apps”, and in News category
- 1,000+ ★★★★★ reviews at launch
- 1 month free trial w/ auto-renewing subscription
- Top Grossing app in news category

## TOP GROSSING >

1.  NYTimes – Breaking Local, National &... News
2. The Wall Street Journal – Breaki... News
3. The Economist for iPhone News
4. The Washington Post Classic fo... News
5. theSkimm News

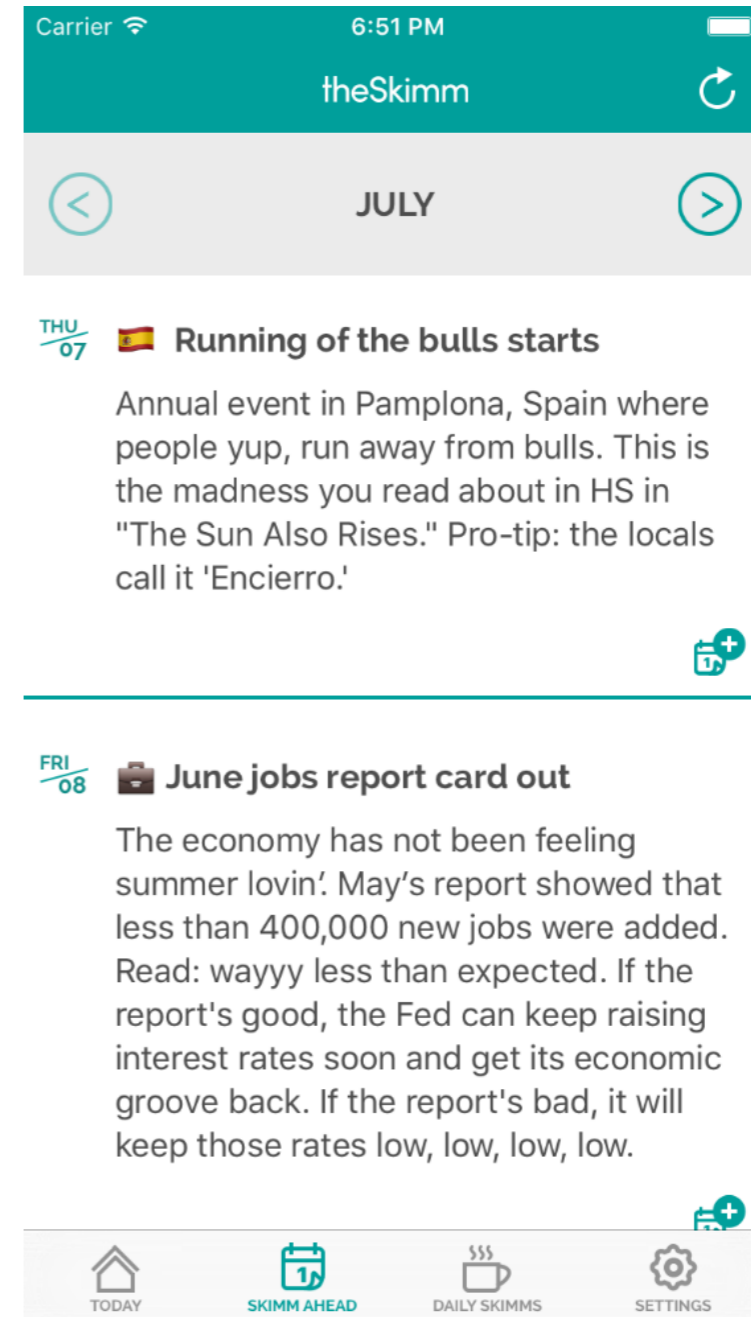
# theSKIMM TODAY

- Native Presentation of the Daily Skimm
- Today's events from Skimm Ahead
- A new 5 Min Read every day
- Skimm Picks for your weekend



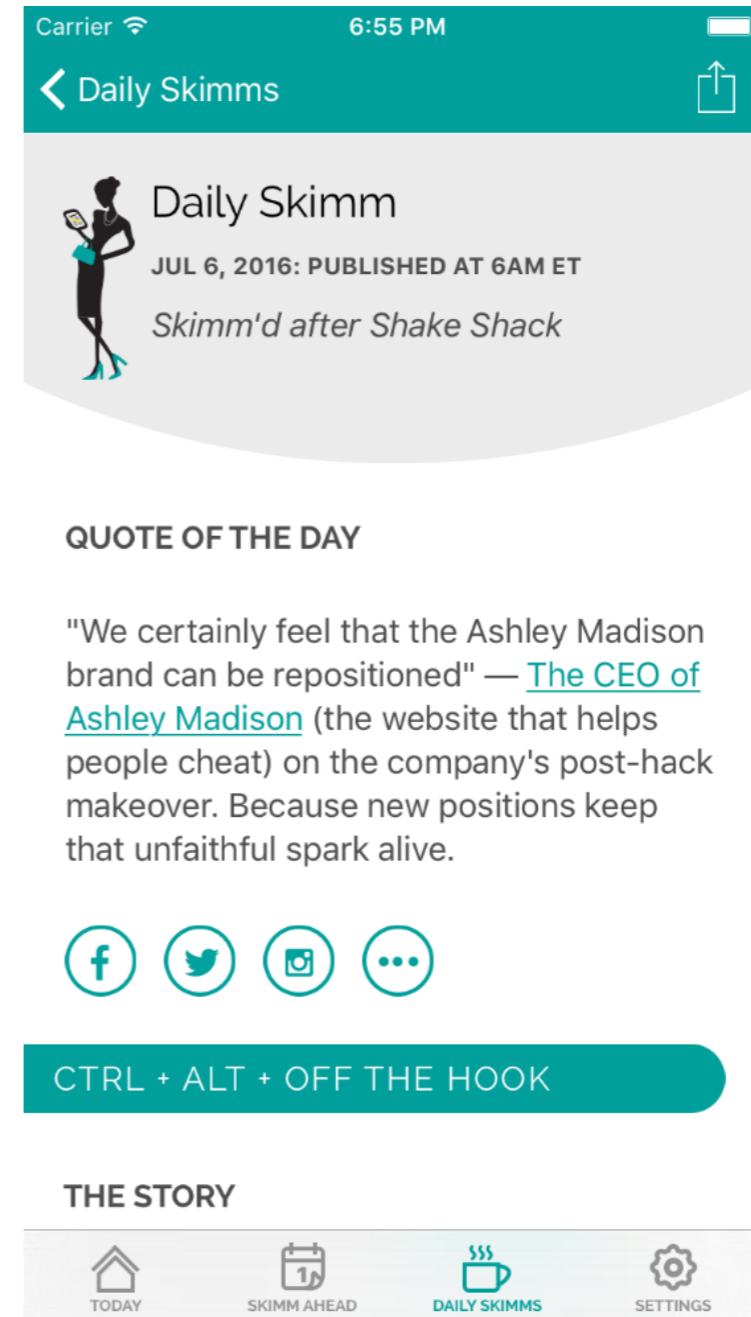
# SKIMM AHEAD

- Calendar of important upcoming events in world news, politics, sports entertainment, and more
- Track events with a webcal subscription or via EventKit integration



# DAILY SKIMMS

- Native presentation of the Daily Skimm
- Archive of Past issues





## THE CODE

```
! [language isEqualToString:@"swift"]
```

(sorry)

# APP ARCHITECTURE

- Reactive
- VIPER
- MVP
- MMVM
- MVEMJSUNP





**Rob Rhyne**  
@capttaco

 Follow

I'm announcing my new software pattern called LOLVC. It's an acronym short for "I'm laughing at you for thinking you're smarter than MVC"

RETWEETS  
**15**

LIKES  
**32**



12:15 PM - 7 Jan 2016



 15

 32



NSOperationQueue



# Advanced NSOperations

WWDC 2015

# NSOPERATION

- Simple, well-known API - override main, add to an NSOperationQueue
- Cancellable
- Supports dependencies between operations
- completion block
- NSOperations are abstract, add what you need in subclasses

# NSOperations in theSkimm View Controllers

- View Controllers have a reference to an NSOperationQueue
- Complicated model stuff / networking in NSOperation “get from/post to API” subclasses
- Inspect error custom property on completion
- Model changes are propagated to the UI via Core Data notifications

SkimmAheadViewController

NSOperationQueue

GetSkimmAheadOperation

completionBlock

React to Errors

NSOperationQueue

DownloadJSONOperation

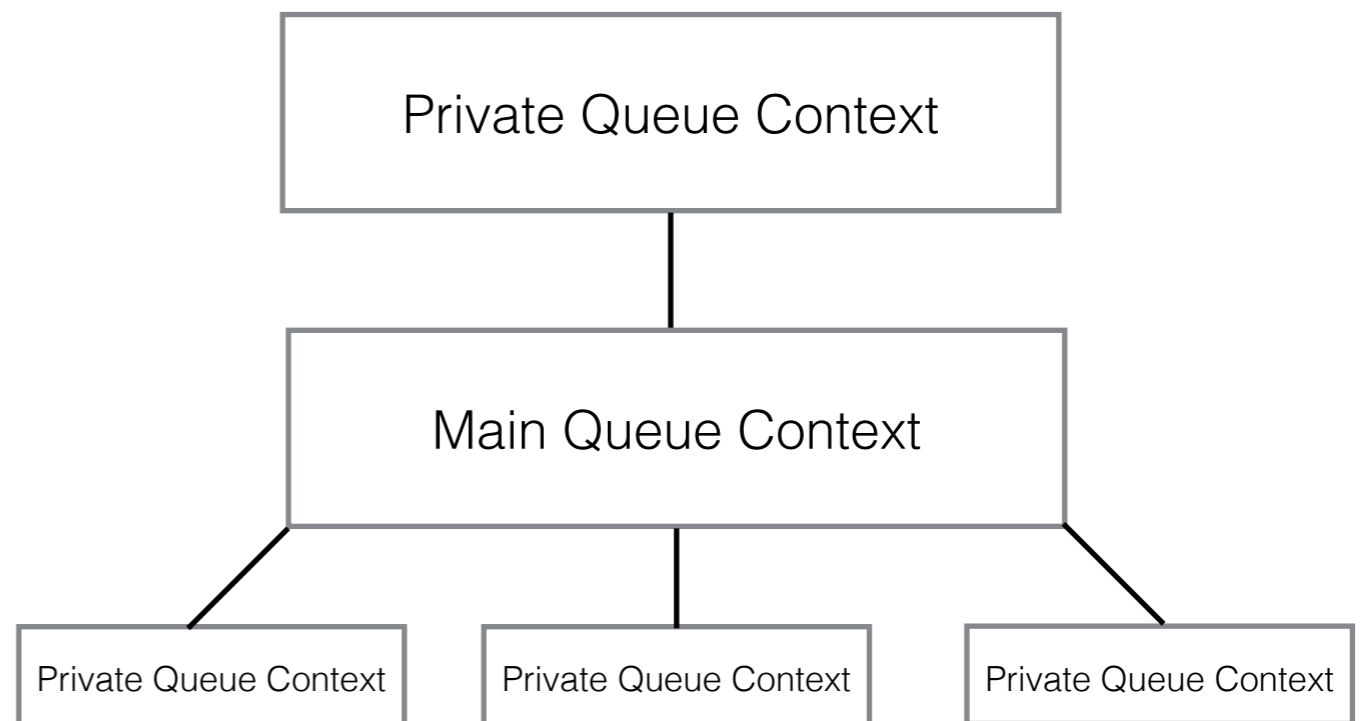
ParseSkimmAheadJSONOperation



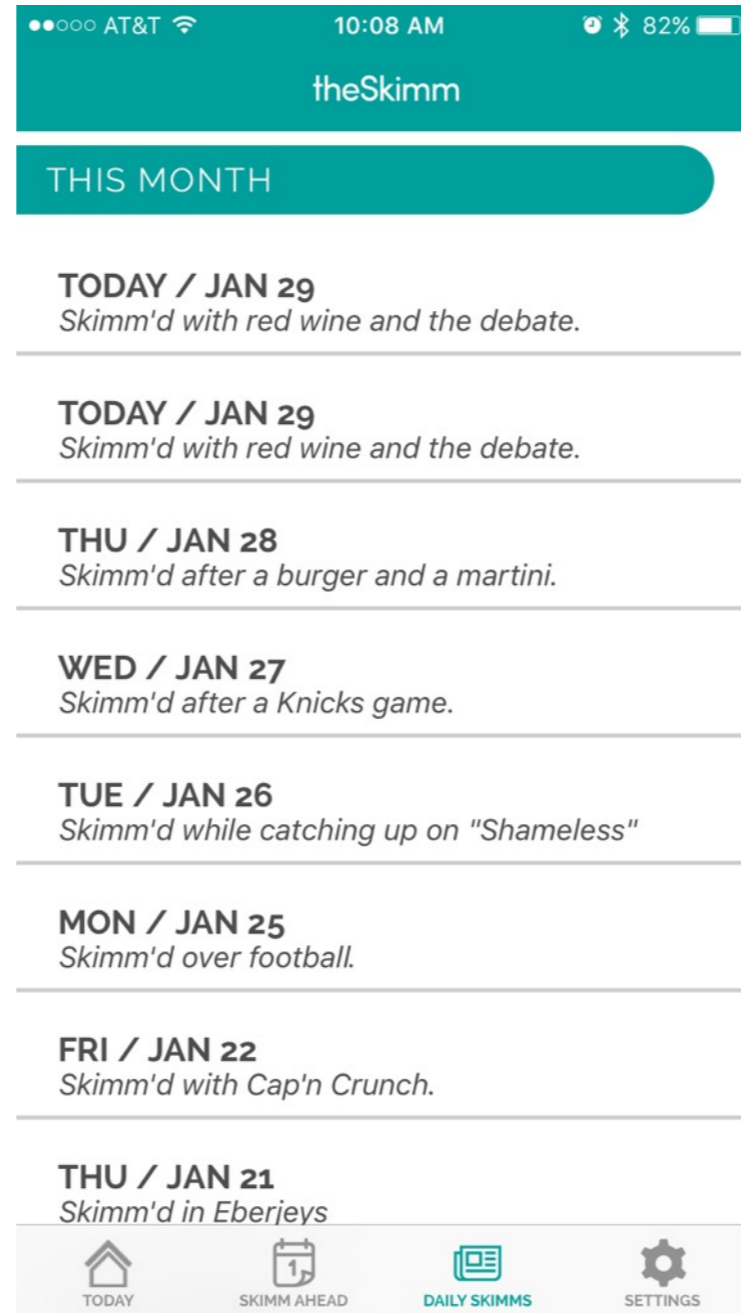
# Core Data

# Core Data Concurrency, first try

- Root Private Context for asynchronous saving
- Main Queue Context for UI, passed around by View Controllers
- Private child contexts used for background operations
- Really simple programming model



# But there are some issues...



# Unique Constraints

- Introduced in iOS 9
- Mark attributes as unique in Model file
- Avoid “create or update” pattern
- Relies on merge policies to resolve conflicts...
- ... but merging changes from a child -> parent context ignores merge policies!
- Buggy with MOs w/ complicated relationships

```
NSManagedObject *obj;
NSFetchRequest *fr = [[NSFetchRequest alloc]
                    initWithEntityName:@"Obj"];
obj.predicate = [NSPredicate predicateWithFormat:
                @"id == %@", id];
NSError *fetchError;
NSArray *fetchResults = [managedObjectContext fr
                        error:&fetchError];
if (!fetchResults) {
    NSLog(@"%@", fetchError);
} else {
    obj = fetchResults.firstObject;
}
if (!obj) {
    obj = [NSEntityDescription
          insertNewObjectForEntityForName:
            @"Obj"];
    inManagedObjectContext:managedObjectContext];
    obj.id = id;
}
```






# Crashes

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🔍 CoreData: -[NSFetchedResultsController objectAtIndexPath:] + 456

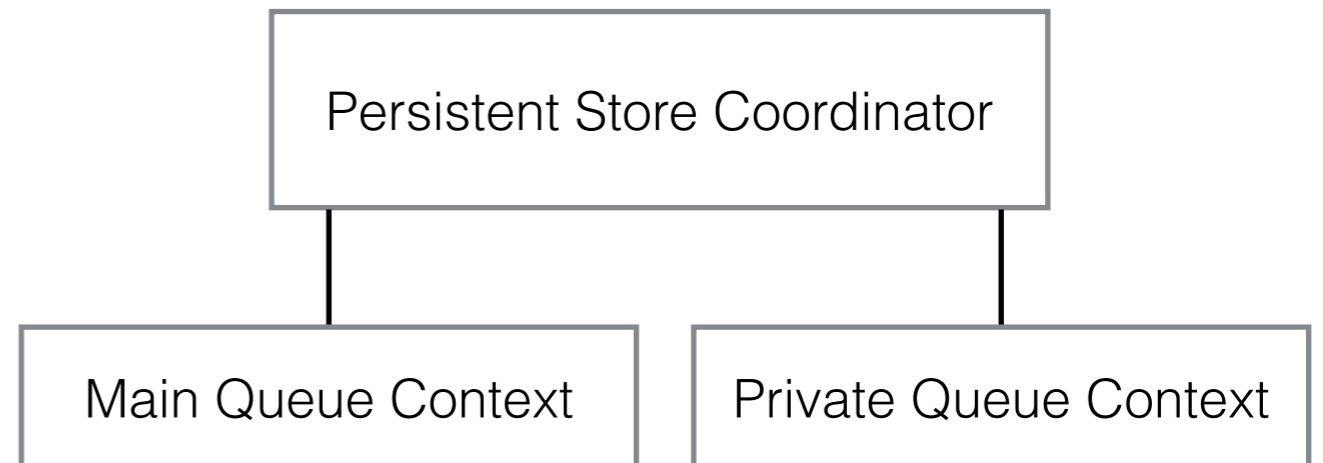
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▼ **Last Exception Backtrace**

	0	CoreFoundation	__exceptionPreprocess
	1	libobjc.A.dylib	objc_exception_throw
	<b>2</b>	<b>CoreData</b>	<b>-[NSFetchedResultsController objectAtIndexPath:]</b>
	3	theskimm	-[SKMPastSkimmsTableViewController configureCell:forIndexPath:]
	4	theskimm	-[SKMPastSkimmsTableViewController controller:didChangeObject:atIndexPath:forChangeType:newIndexPath:]

# Core Data Concurrency, second try

- Shared Persistent Store Coordinator
- Main Queue Context for UI, passed around by View Controllers
- Private Queue contexts used for background operations
- Merge when Private Context saves



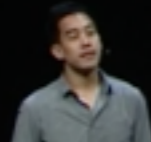
# Subscriptions

70%

Proceeds  
Less Than One Year

85%

Proceeds  
One Year or More



# Working with Subscriptions

- Just another In-App Purchase
- Documentation still reflects original intent of subscription apps (Newsstand)
- Testing is a pain, use TestFlight
- Try it, if you have a service that provides lasting value! 💰



# Testing

- Write lots of tests! If code is technical debt, tests are like a savings account.
- Bots - theSkimm publishes on a regular schedule, so easy to verify if served JSON is parseable every morning
- UI Tests w/ Bots are buggy



# We're hiring!

EDITORIAL Skimm'r  
FOLLOW ME Skimm'r  
CONTENT PRODUCT MANAGER Skimm'r  
TECH APPLICATIONS Skimm'r  
GROWTH Skimm'r  
SB INSIGHTS Skimm'r  
MEDIA SALES OPS Skimm'r

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