### MASTERING AUTO LAYOUT

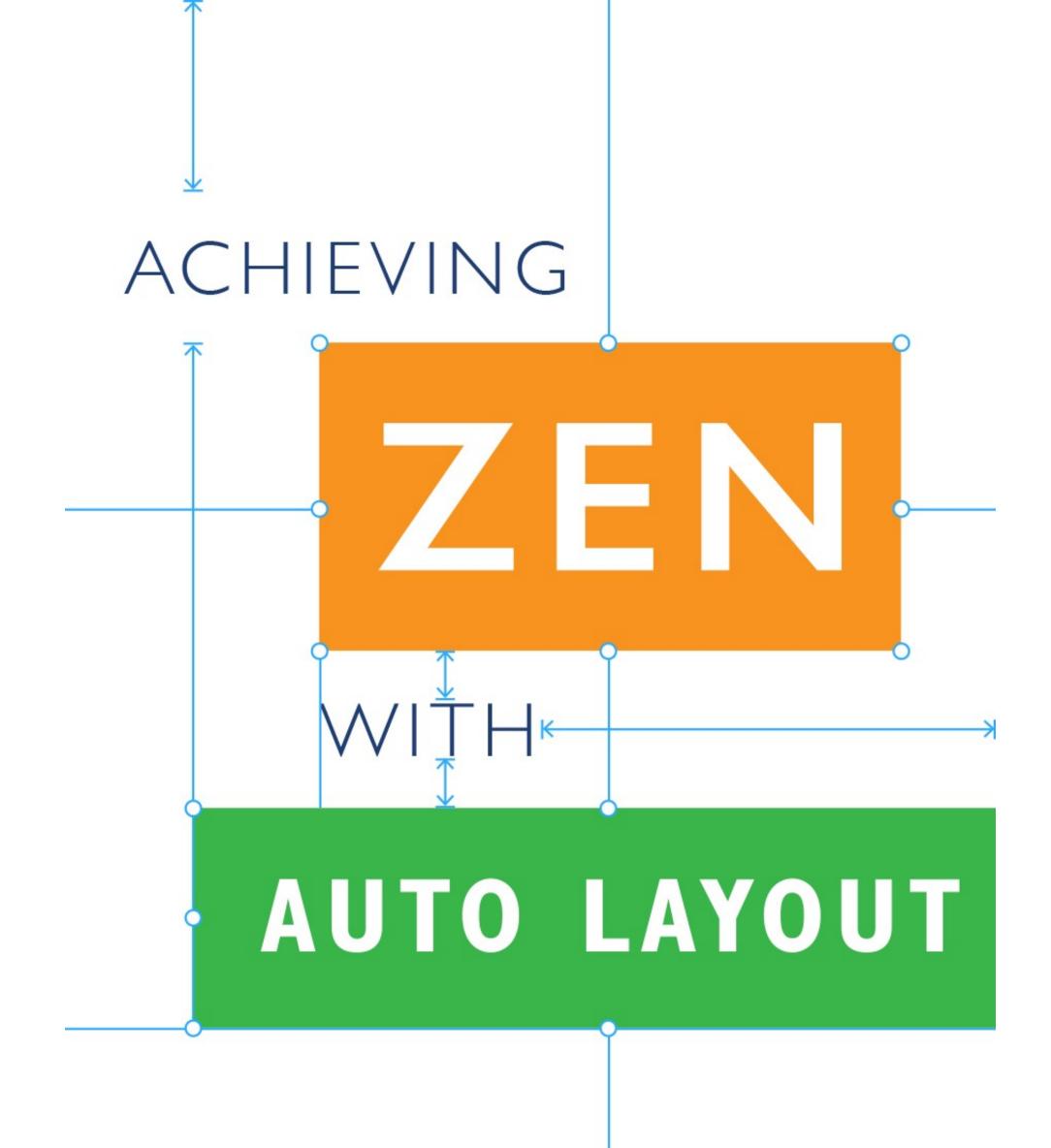
Justin Williams

### JUSTIN WILLIAMS

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JUSTIN WILLIAMS

#### BOOK TOPICS COVERED

- How Auto Layout works under the hood
- Taking advantage of Interface Builder
- Code-based constraints
- Using Size classes
- Layout Guides and Anchors
- And more!

Save 20% with Code: 360iDev

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#### TODAY'S AGENDA

- Layout Margins
- Layout Anchors
- Layout Guides
- Debugging Auto Layout with Swift
- Time for Questions? Maybe.

## LAYOUT MARGINS

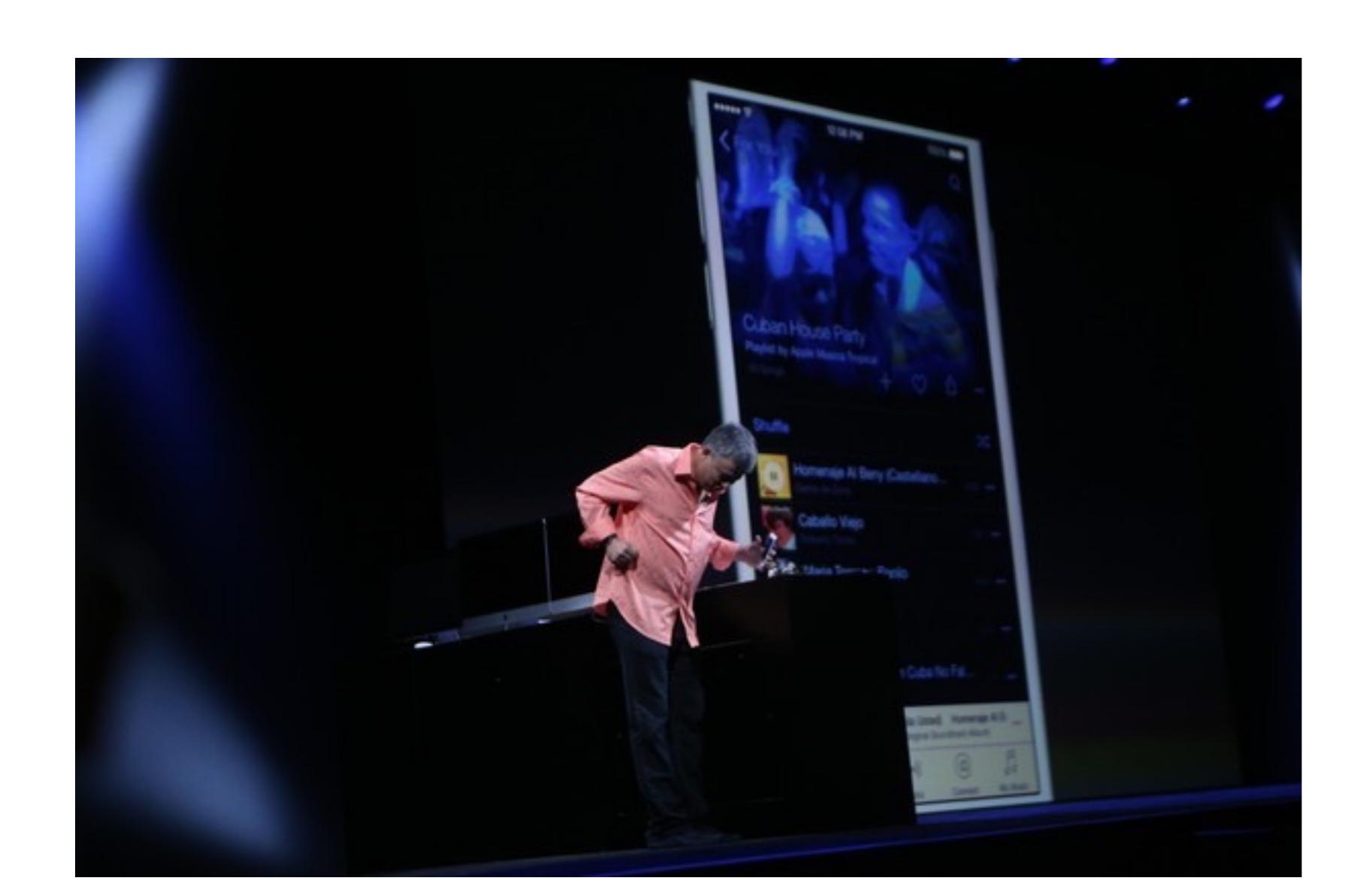
#### LAYOUT MARGINS

- Require iOS 8 or greater
- Adjust view's padding, without adjusting constraints.
- UIEdgeInset called layoutMargins on UIView

## SACRIFICE TO THE DEMO GODS



# EXTRA SACRIFICE, JUST IN CASE



## MARGINS DEMO

# LAYOUT ANCHORS

#### OLD AND BUSTED

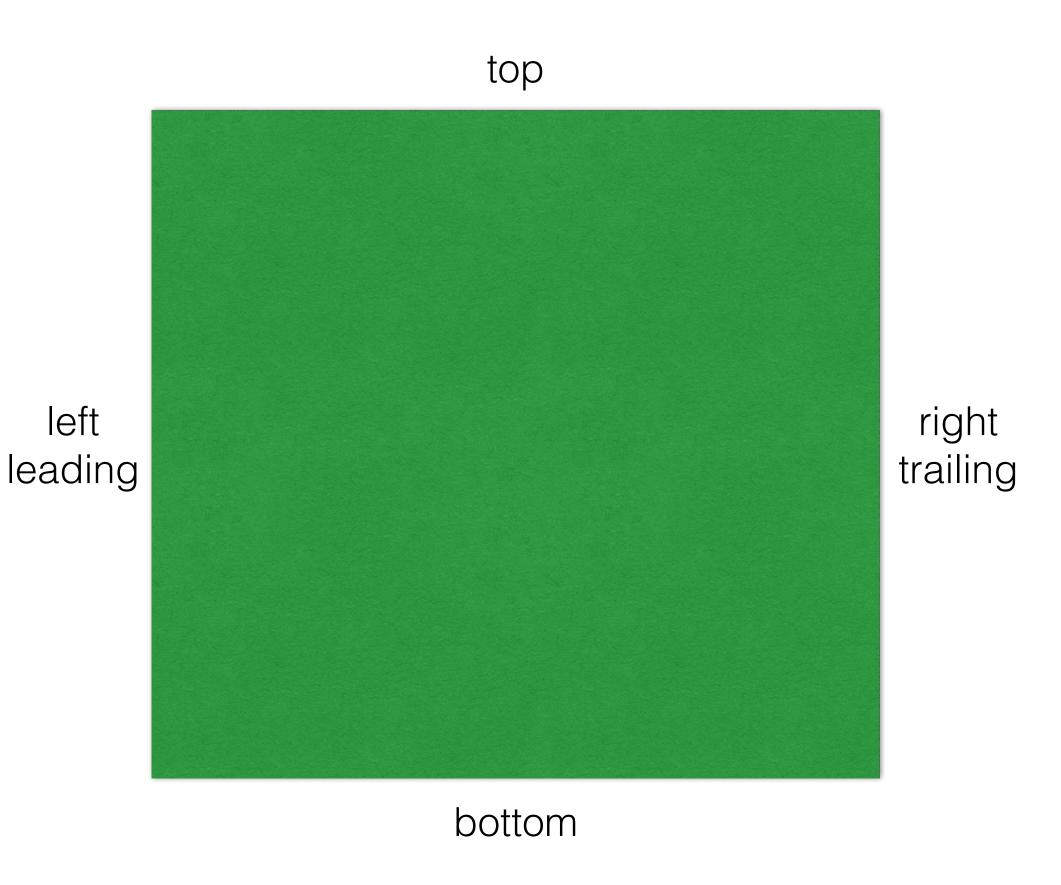
```
let emailLeadingEdgeConstraint = NSLayoutConstraint(item:
    emailLabel, attribute: .Leading, relatedBy: .Equal, toItem:
    emailField, attribute: .Leading, multiplier: 1.0, constant:
    0.0)
    view.addConstraint(emailLeadingEdgeConstraint)
```

#### NEW HOTNESS

```
let emailLeadingEdgeConstraint =
emailLabel.leadingAnchor.constraintEqualToAnchor(emailField
.leadingAnchor)
view.addConstraint(emailLeadingEdgeConstraint)
```

#### LAYOUT ANCHORS

- topAnchor / bottomAnchor
- leadingAnchor / trailingAnchor
- leftAnchor / rightAnchor
- heightAnchor / widthAnchor



# ANCHORS DEMO

#### ONE NEAT TRICK...

emailLabel.leadingAnchor.constraintEqualToAnchor
(emailField.leadingAnchor).active = true

## LAYOUT GUIDES

#### LAYOUT GUIDES

- A replacement for spacing UIViews.
- Rectangular
- Needs constraints on all four edges to set sizing
- Simplify complex layout scenarios

## LAYOUT GUIDE DEMO

## DEBUGGING AUTO LAYOUT

#### DEBUGGING AGENDA

- Constraint Identifiers
- \_autolayoutTrace
- Restoration Identifiers

## TO THE DEMO ROOM!

### THANK YOU

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