Bibliography: iOS and Mac Visualization and Immersive Interfaces

Swift

Daniel Steinberg, "A Swift Kickstart" (2nd edition), https://itunes.apple.com/us/book/a-swift-kickstart/id891801923?mt=13

Brad Larson, Rapid Prototyping in Swift Playgrounds, https://www.objc.io/issues/16-swift/rapid-prototyping-in-swift-playgrounds/. Quick plotting demo.

Erica Sadun, Playground Secrets and Power Tips, https://itunes.apple.com/us/book/playground-secrets-power-tips/id982838034?mt=11#. I used this when building material. You probably don't need it.

All of Apple's Swift books, documentation, and videos, linked from one page: https://developer.apple.com/swift/resources/. I especially recommend the seven WWDC 2015 session videos. Don't watch any of the 2014 Swift sessions, because the language changed so much in the intervening year.

Recommended Apple books: Swift Programming Language, Swift Standard Library Reference, and Using Swift with Cocoa and Objective-C.

Apple Swift Developer blog: https://developer.apple.com/swift/blog/.

SpriteKit

A nice intro to SpriteKit is from the 2013 Tech Talks Tour: https://developer.apple.com/videos/play/techtalks2013-13/.

From there, read the SpriteKit Programming Guide: https://developer.apple.com/library/ios/documentation/GraphicsAnimation/Conceptual/SpriteKit_PG/Introduction/Introduction.html#//apple_ref/doc/uid/TP40013043

Further WWDC videos:

- 2015-604: What's New in SpriteKit.

- 2015-608: Introducing GameplayKit.

- 2015-609: Deeper into Gameplay Kit with DemoBots.

- 2014-606: What's New in SpriteKit for the sections on the Scene Editor and on shaders.

- 2014-608: Best Practices for Building SpriteKit Games. Covers architecture and prototyping.

Visualizing SpriteKit (Erica Sadun): http://www.informit.com/articles/article.aspx?p=2234245
This article covers SpriteKit debugging techniques to show the node names, boundaries, and hierarchy

DemoBots: Building a Cross Platform Game with SpriteKit and GameplayKit: https://developer.apple.com/library/prerelease/ios/samplecode/DemoBots/Introduction/Intro.html.
Apple's 2015 all-the-stops SpriteKit demo.

SceneKit

David Rönnqvist, "3D Graphics with Scene Kit", https://itunes.apple.com/us/book/3d-graphics-with-scene-kit/id936235049?mt=13

SceneKit Programming Guide: https://developer.apple.com/library/prerelease/mac/documentation/3DDrawing/Conceptual/SceneKit_PG/Introduction/Introduction.html#//apple_ref/doc/uid/TP40012282

objc.io, Issue 18, November 2014: "Scene Kit" (David Rönnqvist). https://www.objc.io/issues/18-games/scenekit/.

WWDC Session Videos:

- 2015-606: Enhancements to SceneKit.

- 2014-609: What's New in SceneKit.

- 2015-602: Managing 3D Assets with Model I/O.

- 2014-610: Building a Game in SceneKit. Lots of optimization tips.

- 2013-500: What's New in SceneKit. Most of it is reviewed in 2014-609 though.

SceneKit Slides for WWDC 2014: https://developer.apple.com/library/prerelease/mac/samplecode/SceneKitWWDC2014/Introduction/Intro.html#//apple_ref/doc/uid/TP40014551

SceneKit's Presentation for WWDC 2013: https://developer.apple.com/library/prerelease/mac/samplecode/SceneKit_Slides_WWDC2013/Introduction/Intro.html#//apple_ref/doc/uid/DTS40013423

Fox: Building a SceneKit Game with the Xcode Scene Editor: https://developer.apple.com/library/prerelease/ios/samplecode/Fox/Introduction/Intro.html

SceneKit State of the Union Demo (sample code): https://developer.apple.com/library/prerelease/mac/samplecode/SceneKitReel/Introduction/Intro.html

Bananas: A simple SceneKit platforming game: https://developer.apple.com/library/prerelease/mac/samplecode/Bananas/Introduction/Intro.html

Web tools and Javascript

WWDC Session Videos:

- 2014-206: Introducing the Modern WebKit API.

- 2014-509: Creating 3D Interactive Content with WebGL. Has a simple OpenGL shader example.

NSHipster: WKWebView (Mattt Thompson): http://nshipster.com/wkwebkit/

Visualization

Readings:

Stephen Few, "Information Dashboard Design (second edition)", chapter 2: "Thirteen common mistakes in dashboard design".

Edward Tufte, "The Visual Display of Quantitative Information (second edition)", chapter 6: "Data Ink Maximization and Graphical Design".

Edward Tufte, "Beautiful Evidence", chapter 2, "Sparklines: Intense, Simple, Word-Sized Graphics".

Bostock et al., Data Driven Documents: http://d3js.org

Scott Murray, D3 Tutorials: http://alignedleft.com/tutorials/d3/

Scott Murray, Interactive Data Visualization for the Web (O'Reilly 2013), http://chimera.labs.oreilly.com/books/1230000000345/

Mike Bostock et al., D3 Gallery: https://github.com/mbostock/d3/wiki/Gallery

Mike Bostock, mbostock's bl.ocks, http://bl.ocks.org/mbostock

Elijah Meeks, D3.js in Action (Manning, February 2015). https://www.manning.com/books/d3-js-in-action. Source code: https://manning-content.s3.amazonaws.com/download/7/f2ab18b-4764-4b75-97e3-3fa829122a9d/D3js_SourceCode.zip

Nick Qi Zhu, Data Visualization wit hD3.js Cookbook (Packt Publishing, 2013). https://www.packtpub.com/web-development/data-visualization-d3js-cookbook. Source code: https://github.com/NickQiZhu/d3-cookbook.

Christophe Viau, The Big List of D3.js Examples, http://christopheviau.com/d3list/.

General Apple Development

Apple Developer Forums: https://forums.developer.apple.com/welcome

iOS

App Programming Guide for iOS: https://developer.apple.com/library/ios/documentation/iPhone/Conceptual/iPhoneOSProgrammingGuide/Introduction/Introduction.html#//apple_ref/doc/uid/TP40007072

iOS Human Interface Guidelines: https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/index.html#//apple_ref/doc/uid/TP40006556

Mac

Mac App Programming Guide: https://developer.apple.com/library/prerelease/mac/documentation/General/Conceptual/MOSXAppProgrammingGuide/Introduction/Introduction.html#//apple_ref/doc/uid/TP40010543

OS X Human Interface Guidelines: https://developer.apple.com/library/mac/documentation/UserExperience/Conceptual/OSXHIGuidelines/index.html#//apple_ref/doc/uid/20000957

Apple TV

App Programming Guide for tvOS: https://developer.apple.com/library/prerelease/tvos/documentation/General/Conceptual/AppleTV_PG/index.html#//apple_ref/doc/uid/TP40015241

Apple TV Human Interface Guidelines: https://developer.apple.com/tvos/human-interface-guidelines/

General

Xcode Overview: https://developer.apple.com/library/ios/documentation/ToolsLanguages/Conceptual/Xcode_Overview/index.html#//apple_ref/doc/uid/TP40010215

Simulator User Guide: https://developer.apple.com/library/ios/documentation/IDEs/Conceptual/iOS_Simulator_Guide/Introduction/Introduction.html#//apple_ref/doc/uid/TP40012848

Debugging with Xcode: https://developer.apple.com/library/ios/documentation/DeveloperTools/Conceptual/debugging_with_xcode/chapters/about_debugging_w_xcode.html#//apple_ref/doc/uid/TP40015022

Instruments User Guide: https://developer.apple.com/library/prerelease/mac/documentation/DeveloperTools/Conceptual/InstrumentsUserGuide/index.html#//apple_ref/doc/uid/TP40004652

Testing with Xcode: https://developer.apple.com/library/ios/documentation/DeveloperTools/Conceptual/testing_with_xcode/chapters/01-introduction.html#//apple_ref/doc/uid/TP40014132

Auto Layout Guide: https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/AutolayoutPG/index.html#//apple_ref/doc/uid/TP40010853

App Distribution Guide: https://developer.apple.com/library/ios/documentation/IDEs/Conceptual/AppDistributionGuide/Introduction/Introduction.html#//apple_ref/doc/uid/TP40012582

Metal Programming Guide: https://developer.apple.com/library/ios/documentation/Miscellaneous/Conceptual/MetalProgrammingGuide/Introduction/Introduction.html#//apple_ref/doc/uid/TP40014221

WWDC Videos:

- 2015-608: Introducing GameplayKit.

- 2014-502: AVAudioEngine in Practice.

- 2015-711: Networking with NSURLSession

Shipping an App with App Transport Security (Tim Ekl): http://lithium3141.com/blog/2015/08/21/shipping-an-app-with-app-transport-security/.