## Contents

Preface Welcome	5
Happy Days Setting up Building the user interface Permissions! Permissions everywhere! Importing into the collection view Recording, transcribing, and playing audio Searching using Spotlight Wrap up	8
TimeShare Setting up Building the user interface Working with MSMessagesAppViewController Selecting possible dates Sending and receiving messages Making our message look attractive Wrap up	66
ChooseCruise Setting up The three steps Integrating with Maps Adding Siri support Wrap up	111

Polyglot Setting up Creating a basic language app Building a today extension Animating views with UIViewPropertyAnimator Wrap up	133
Alarmadillo  Setting up Building the user interface Creating model classes Listing groups Listing alarms Editing alarms Loading and saving data Adding local notifications Responding to user input Wrap up	167
Flip Setting up Building the basic game Creating a model of our game Detecting legal moves Capturing pieces Capturing pieces Monte Carlo strategy Making an Al player Wrap up	238
Dead Storm Rising Setting up SpriteKit tile maps Moving around the map	286

Selecting game items Moving and attacking Controlling the game Wrap up

Techniques 355

Animations
Units
Core Data
Raw photography
Image rendering
Warp Geometry