

Pro iOS 5 Augmented Reality



Kyle Roche

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About the Author



Kyle Roche has been focused on emerging technologies since 2000. During his time at Appirio, he led some of the world's first and largest Google and Force.com cloud platform migrations. He is the chief architect behind RingDNA (ringdna.com) and the co-founder of 2lemetry (2lemetry.com). Mobile applications and connected electronics (M2M) are the main focus of all of Kyle's projects. Augmented reality and gaming frameworks play a large part in how these applications are visualized. Kyle studied mathematics and was on the wrestling team at the University of New Mexico. He currently lives in Denver, Colorado with his wife Jessica and their four children: Aodhan, Avery, Kelly, and Timmy. If there is ever free time outside of family life, Kyle spends it playing hockey or building iOS applications for local nonprofits. You can find him at

kyleroche.com.

About the Technical Reviewers



Yosun Chang has been creating apps for iOS and Android since early 2009, and is currently working on a next generation 3D and augmented reality mobile games startup called nusoy. Prior to that, since 1999 she did web development on the LAMP stack and Flash. She has also spoken at several virtual world, theater, and augmented reality conferences under her artist name of Ina Centaur. She has a graduate level background in physics and philosophy from UC San Diego and UC Berkeley. An avid reader who learned much of her coding chops from technical books like the current volume, she has taken care to read every single word of the chapters she reviewed — and vet the source. Contact her @yosunchang on Twitter.



Peter Ma has been working with web, iOS, Android, WebOS, and WP7 since 2007. He has been building projects from database design to mobile presentation. Peter has won many hackathons and developer challenges, all using native tools. He has won a TED Prize sponsored challenge and gave a TED talk about building mobile apps during TED Global2010. The mobile app Pickup Sports was the foundation for Spotvite and had over 80,000 signups. Peter is also involved in many open source projects; he has pioneered the TEDx app that helps organizers to build their own iOS and Android applications. Contact him @Nyceane on Twitter.



Graham Wood is a mobile application developer whose primary focus is the iOS platform. He has 11 years of experience in software development, with most of that time spent writing software for safety critical embedded systems for commercial aircraft. Graham holds a Bachelor of Science degree in Computer Science from the University of Minnesota. His company, Wood App Developers LLC, develops mobile applications for clients, along with its own suite of iOS applications. He can be reached at graham@woodapps11c.com or followed on Twitter at @woodapps11c.

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I wrote this book in the middle of a transition between startups. We were transitioning from one company and starting two new projects. Furthermore, iOS 5 was in beta for most of the timeline. It was a very difficult time to be writing a book. It wouldn't have been possible without the support from the Apress team, led by Corbin Collins and Steve Anglin.

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Preface

This was a fun and interesting book to write! Augmented reality is a fascinating new field with tons of potential to reshape how we integrate technology into our everyday lives. Companies and toolkits are popping up each week trying to capture a piece of this emerging market.

The goal of this book was to provide you with a jump-start on building these types of applications. I begin by discussing the basic foundations of the app, such as the compass and accelerometer, and move on to more advanced ideas behind image processing.

This book is intended for experienced iOS developers. You should have moderate experience with Xcode and objective-C. I use third-party frameworks and some of the new iOS5 APIs to show you how to build augmented reality applications for location, social, and gaming purposes. You can download the source code for this book from the book's page on Apress.com, or check out www.apress.com/source-code/.