



Community Experience Distilled

Learning Cocos2d-JS Game Development

Learn to create robust and engaging cross-platform HTML5 games
using Cocos2d-JS

Foreword by

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Huabin LING, Lead Programmer of Cocos2d-JS

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BIRMINGHAM - MUMBAI

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Foreword

Known by developers all over the world, Cocos2d-x has always endeavored to help developers build and port their games on iOS, Android, and many more native platforms. However, not many developers are aware that the Cocos2d-x team also provides an efficient game engine called Cocos2d-JS to assist users developing cross-native and web platform games with only one code base.

The year 2014 has certainly been a big year for Cocos2d-JS. It became more widely adopted by big companies all over the world; we've released a major version—3.0—and combined Cocos2d-html5 and Cocos2d-x JSB (JavaScript Binding) into Cocos2d-JS. It supplies your game with cross-browser and cross-platform capabilities accompanied by complete Cocos2d-x features, complete tool chain support, and simple friendly APIs. Furthermore, we reinvented the workflow for all platforms, providing a consistent development experience for whichever platform you want to distribute it to. As a result, the *Code once, run everywhere* principle is easily achieved and feels natural in Cocos2d-JS. With one single JavaScript code base, you can run your game on all web browsers and native platforms, including Mac OS, Windows, iOS, and Android. This will allow your game to deliver in almost all channels of distribution for better opportunities.

Today, I'm more than grateful to witness the creation of this extraordinary book. I believe this book will help us by building a bridge to our developers around the world so they can step over the language barrier. I'd love to express my special thanks to dear Feronato, the author of this amazing book. He started programming when I was a little child in diapers and he's still going strong, inspiring thousands of indie developers around the world—that's surely something!

In this book, Feronato gathered and generously shared with us his profound knowledge in game programming and Cocos2d-JS; he also included a rich collection of examples in each chapter; this, in my opinion, is one of the best ways to help learning, as readers will get a clear sense of how to apply text in the book to real work.

Here, allow me to express my honestly sincere gratitude to Emanuele Feronato for completing such an amazing book.

Hope you all enjoy this amazing book and benefit from it.

Shun Lin

Cofounder of Cocos2d-x

Foreword

As we look forward to 2015 with excitement, I wanted to look back at what we built in 2014 and share with you how important the release of this great book is to our community.

2014 has been an extraordinary year for Cocos2d-JS. Since we announced Cocos2d-JS v3.0 alpha at our spring developers conference in March, we have put our best efforts into building a great and unique game engine for our community. Our mission is to offer an easy *code once, runs everywhere* game development experience and lower the development threshold to bring more developers into the game industry.

Although the version was v3.0, it was the first version of Cocos2d-JS that was inherited from Cocos2d-html5 2.2.3. It has been an entirely new era in Cocos2d's JavaScript development since v3.0; here are the most important things that we have done:

- Combined the Cocos2d-html5 web engine and the native Cocos2d-x JavaScript Bindings engine so that Cocos2d-JS games are equipped naturally with cross-browser and cross-platform abilities.
- Provided a consistent workflow for all platforms—a best ever *Code once, runs everywhere* experience.
- Made a great step forward in performance for both the web engine and native engine.
- Built a bunch of new features such as Facebook Integration, Assets Manager, Object Pool, JS to Objective-C/JAVA reflection, and so on.

As a result, we have started to see many games released with Cocos2d-JS, especially on the Web, iOS, and Android. Today, I'm very proud to witness the very first English book on Cocos2d-JS; it really means a lot to us. Thanks to the great work of Emanuele on this book, I believe it will help many developers all around the world learn not only about Cocos2d-JS, but also game development in general. I'm also convinced that many developers, like you, our dear reader, will enter the game industry because of this book and start a great adventure with your code.

I recommend this book not only because it's the first one, but also because reading this book is a great approach to learning Cocos2d-JS. Emanuele covered all essential parts of Cocos2d-JS in this book; most importantly, he discussed all these topics with rich examples and sample codes. Furthermore, he managed to structure these examples into small games so that readers can progressively see their work turning into real games. I believe this will be a very strong motivation and will bring much fun while learning.

Again, I want to express my appreciation to Emanuele Feronato and this wonderful book. Hope you enjoy learning Cocos2d-JS with Emanuele and enjoy coding games.

Huabin LING

Lead Programmer of Cocos2d-JS

About the Author

Emanuele Feronato has been studying programming languages since the early 1980s, with a particular interest in game development. He has taught online programming for European Social Fund (ESF), and then founded a web development company in Italy.

As a game developer, Emanuele developed Flash games sponsored by the biggest game portals and his games have been played more than 90 million times. He now ports most of them on mobile platforms and develops HTML5 games, which have been featured in the most important mobile web markets, such as Amazon.

As a writer, he has worked as a technical reviewer for Packt Publishing and published the books *Flash Game Development by Example* and *Box2D for Flash Games*.

His blog, www.emanueleferonato.com, is one of the most visited blogs about indie game development.

First, I would like to thank Packt Publishing for giving me the opportunity to write this book, especially Richard Harvey, Azharuddin Sheikh, and Samantha Gonsalves for helping me improve the book quality.

The biggest thank you obviously goes to my blog readers and my Facebook fans for appreciating my work, giving me the will to write more and more. Also, thank you for playing my games. Hope you enjoy playing them as much as I enjoyed developing them.

Finally, a special thank you to my wife, Kirenica, for her patience while I was writing the book.

About the Reviewers

Pradyumna Doddala is a passionate technologist and entrepreneur; he is the CEO of Kronch IT and has been an advisor for a couple of technological startups. Pradyumna has focused on different domains, such as augmented reality, life sciences, location-based marketing, and crowdsourcing solutions. He wrote several open source libraries and blog posts to assist his fellow developers. Pradyumna is also a musician and likes to spend his spare time creating music on his guitar.

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I want to thank my mom and the publishers for all the support.

Pavel Goodanets is a programmer, writer, and game designer from Latvia. He loves point-and-click adventures, games with strong narratives, and experimental forms of gameplay. Pavel speaks Russian and English. His website is <http://pavel-insight.com> and you can contact him at pavel.insight@gmail.com.

Marc Estruch Tena has completed his BS degree in Multimedia Engineering with honors from La Salle – Ramon LLull University, Barcelona, Spain, in 2012. Since then, he has been employed as a research associate at the Human Sensing Laboratory in the Robotics Institute of Carnegie Mellon University, Pittsburgh, PA, USA.

As a member of this research laboratory, he has developed several applications and games for web and mobile platforms using Computer Vision algorithms that feature the IntraFace (<http://humansensing.cs.cmu.edu/intraface>) software for facial image analysis. His interest in Human-computer Interaction and his programming and design skills have led him to pursue new ways of user interaction with different tools and frameworks.

Jialong Zhai pursued a post-graduate degree in Computer Science from Xidian University. He has lots of experience in mobile and web games development and is good at C++ and JavaScript. Currently, Jialong works for the Cocos engine team, bringing free open source game engines to people.

First, I must thank the author and the staff of Packt Publishing, Sanchita and Samantha. This book is the result of their hard work. Secondly, I would like to thank my coworkers Shun, Dingping, and Huabin; they gave me many good suggestions during the reviewing process.

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I want to dedicate this book to my little daughter Kimora. At the moment she's playing my games and she's my favourite beta tester.

I love you "Cindy Sindientes".

