

Rolf Hendriks

Web: [www.rolfhendriks.net](http://www.rolfhendriks.net)

E-mail: [rolf@rolfhendriks.net](mailto:rolf@rolfhendriks.net)

## SUMMARY

- **Clients + Employers:** Blackboard, Sylvan, Disney, PointAbout, Naughty Dog, iWin, Micros
- **Platforms:** iOS, Android, Windows, Xbox, Playstation
- **Languages:** Objective C, C++, C, Swift, Java, HTML, CSS, SQL, XML, JSON, Javascript, C#
- **Frameworks:** UIKit, Core Graphics, Core Animation, Core Data, sqlite, OpenGL, OpenAL, Core Image, .NET
- **Software:** XCode, Interface Builder, git, Android Studio, Dreamweaver, Illustrator, Photoshop, Inkscape, Subversion, Visual Studio .NET
- **Knowledge:** mobile development, game development, user interface design, graphics and animation, web development, artificial intelligence, machine learning, cognitive psychology

## EMPLOYMENT HISTORY

### iOS Developer

July 2009 - Present

*MapTastic (iPad), ZipTunes (iPhone), Party Game Timer (iPhone)*

- Designed, developed, published, and maintained independent App Store titles
- Created MapTastic, a highly rated competitive US Geography game for the iPad
- Created ZipTunes, an alternative to the iPod mp3 player app

### Blackboard

August 2013 - Present

#### iOS Engineer

*Mobile Learn (iPhone + iPad), Bb Student (iPhone), Bb Grader (iPad)*

- Initiated a company-wide reusable framework for custom UI components and animations
- Introduced accessibility standards including dynamic text and voice over testing
- Innovated a data abstraction layer with mock data and simulated network conditions
- Prototyped an innovative JSON based client/server architecture that ensures a fast user experience against a slow backend while solving offline mode and error handling
- Developed liquid-like animation effects by combining 3D mesh transformations, cubic Bezier splines, and harmonic oscillation physics
- Learned Android, ported key features of the iOS liquid animation system to Android
- Discovered and documented over 500 issues across products by proactively gaining deep product knowledge and developing extensive test data
- Created robust file management capabilities to download and view at least 23 different document and media types while addressing caching, offline mode, and interrupted downloads

### Sylvan Learning

September 2010 - June 2012

#### iPad Designer and Developer

*SylvanSync (iPad)*

- Designed, developed, and architected SylvanSync, an iPad app that replaces paper based student-teacher instruction with iPad-based instruction
- Proactively visited learning centers to interview teachers and center administrators prior to design and development
- Designed the layout, flow, and graphic style of each app module and produced a significant portion of required graphic assets
- Designed, implemented, and documented a RESTful JSON based web service architecture for the iPad to exchange data with with .NET based center servers
- Created a simulated data server on the iPad to enable testing with mock data
- Developed a Bezier Spline based curve fitting algorithm so that teachers and students can annotate HTML based lesson contents with smooth, realistic handwriting
- Innovated a custom gesture based grading mechanism by which answers are embedded into lessons yet only teachers can access grading and answers
- Invented a scroll bar with built in support for left handed users
- Created and maintained an online project knowledge base while authoring 196 pages of technical documentation

Rolf Hendriks

Web: [www.rolfhendriks.net](http://www.rolfhendriks.net)

E-mail: [rolf@rolfhendriks.net](mailto:rolf@rolfhendriks.net)

**PointAbout, Inc.**

**April 2010 - July 2010**

Mobile Software Engineer

- Created a fast multithreaded algorithm to import and update over 500MB of product data from an XML data feed into a Core Data repository
- Used Core Graphics, Core Animation, and Cocos2d to create various animated 3D user interfaces

**Sony Computer Entertainment**

**June 2007 - September 2007**

Gameplay Programmer

*Uncharted: Drake's Fortune (PS3)*

- Created realistic water splash effects based on impact generated by individual joints
- Prototyped a system for implementing hidden treasures
- Created and modified scripted action sequences

**DAM Consultants**

**November 2006 - April 2007**

Game Developer

*Battleship: Fleet Command (PC)*

- Developed games for iWin, Inc., a leading casual game company
- Built a custom algorithm that cuts images into randomized realistic looking jigsaw puzzle pieces
- Programmed artificial intelligence for Battleship: Fleet Command, a tactical board game

**MICROS Systems, Inc.**

**June 2005 - September 2006**

Software Engineer

- Implemented features for various enterprise applications in a large point of sale software suite
- Programmed software to run an automated big systems test simulating thousands of workstations running various transactions in a real-world configuration
- Enhanced a credit card data encryption algorithm to satisfy the latest Verisign security standards
- Explored Visual Studio compiler internals to manage complex dependencies
- Authored detailed technical design documents and user documentation

**Huntington Learning Center**

**February 2005 - April 2005**

Math Tutor

- Taught Algebra, Geometry, and Arithmetic to high school students in preparation for the SAT

**Genuine Games, Inc.**

**September 2004 - December 2004**

Scripter

*50-Cent: Bulletproof (Xbox, PS2)*

- Scripted character behavior for various non playable characters
- Created and tested prototypes for precomputed A\* pathfinding

## EDUCATION

**Full Sail Real World Education**, Winter Park, FL

**June 2004**

Associate of Science in **Game Design and Development**

**Carnegie Mellon University**, Pittsburgh, PA

**May 2003**

Bachelor of Science in **Discrete Math and Logic**

Minor in **Computer Science**

See <http://www.rolfhendriks.net> for screenshots, videos, and more