

# Michael Wells

## iOS App Architecture & Construction

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I have over 30 years of diverse experience in app development spanning software languages, industries, and company scales. Throughout my career I've contributed to both start-ups and large organizations, wearing different hats as a solo developer, team member, manager, and independent contractor. My passion lies in developing stunning iOS applications that combine aesthetics, functionality, and a touch of magic, all while maintaining clean, efficient, and easily maintainable code.

## Skill Summary

**Swift**, Objective-C, Scala, C#, C++, C, JavaScript, Java, Python, Bash

**SwiftUI**, UIKit, WPF, WinForms, HTML/CSS

**CoreData**, **Swift Data**, PostgreSQL, MySQL

**REST APIs**, **Internationalization**, **Continuous Integration**, MDM

VisionKit, CoreGraphics, OpenGL, 2D/3D Graphics

## Senior Software Engineer, Fishbowl (2022-2024)

Developed the Fishbowl Drive iOS App from scratch as the sole developer for six months. The app is written in Swift and SwiftUI, following Apple's latest development practices and technologies. I designed the core architecture, created the underlying framework SDK (including custom HTTP, JSON, REST, and logging components), and generated all app model objects from REST API responses using my own tools. Additionally, I managed app infrastructure, including continuous integration, unit tests, and internal distribution for QA testing. When the rest of the iOS team joined, I contributed major features and components, such as a custom VisionKit camera scanner. Overall, I was the most active contributor to the product, averaging 3 commits per day.

## Independent Contractor, Wells Consulting (2016–2022)

Created warehouse management and custom retail point-of-sale checkout apps. Both tightly integrate with the client's existing business processes. I was the sole developer on both apps, but worked closely with a small team of web and backend engineers.

# Historical Experience

## **Technical Lead, 3D Systems (2013–2016)**

Created an iOS app that controlled a 3D scanner to make custom-fit, 3D-printed wrist braces. I was the sole developer, but worked closely with computational developers and orthopedic doctors. I also wrote a web application that controlled a photogrammetric scanner that captured facial features for 3D printed figurines. Finally, I designed software to automate building surgical Le Fort guides and plates.

## **Director of Engineering, 3VR (2005–2013)**

Managed the VisionPoint and CrimeDex core development teams (15 developers) and successfully delivered seven major platform versions to global, Fortune 1000 companies. I held the top position as a source code committer, contributing to event card panel, video playback, search predicate generation, and basic business controls. Additionally, I played a key role in creating a novel object-relational mapping (ORM) system.

## **Senior Software Engineer, Black Pearl (2004)**

Wrote B4 Designer application-wide cut-copy-paste, icon management, log management, and role-based access.

## **Founder, RTzen (2001–2004)**

As a co-founder, played a key role in managing the company's infrastructure, growth, and technical direction. I designed a robust system framework that encompassed features such as transactional storage, infinite undo, wire graph evaluation, scripting, licensing, multi-threaded jobs, a wire graph editor, and a custom property editor. Additionally, I developed the RT/shader application that allowed artists to create intricate HLSL shader code using an intuitive drag-and-drop visual interface.

## **Technical Lead, Autodesk (1998–2001)**

Led the team responsible for customizing 3DS Max for architectural, game level editing, and web publishing markets. Additionally, I created and help patent the i-drop family of features.

## **Software Engineer, PTC (1995–1998)**

Adapted structural analysis (Pro/MECHANICA), heat tolerance analysis (Pro/THERMAL), motion analysis (Pro/MOTION), and architectural modeling (Pro/REFLEX) applications for Windows. Additionally, I contributed to essential foundational layers including internationalization, printing, user interface, and inter-process communication (IPC).

## **Software Engineer, SL (1993–1995)**

Wrote the Windows version of the 2D graphics SDK (SL-GMS).

# Supplemental Information

## **Patents**

Some of my work has led to patents. In these cases I worked closely with patent lawyers and other co-inventors. Note in US7019743 the inventor is listed as Michael Pittman aka Michael Wells.

Specifying search criteria for searching video data ([US8553084](#))

Monitoring and presenting video surveillance data ([US7843491](#))

Performing operations using drag and drop features ([US7019743](#))

## **Degrees**

Master of Science in Computer Engineering,

Bachelor of Science in Mathematics and Computer Science