

# Michael Wells

[michael@wells.consulting](mailto:michael@wells.consulting) | [www.linkedin.com/in/michaelwells](http://www.linkedin.com/in/michaelwells)

I love creating awesome iOS apps that are beautiful, functional, and even magical. And not just on the outside — *awesome* also means the code is modern, efficient, easy to understand, and a snap to maintain and extend.

## **Sr. Software Engineer, Fishbowl Solutions (2022-2024)**

Fishbowl Solutions creates inventory management software.

- Delivered a new iOS SwiftUI app in six months. Other developers joined me and we added essential features and released it on the App Store six months later.
- Ensured the team reliably produced quality software. Implemented CI/CD with required unit tests and static code analysis, rigorously documented my designs and processes, and guided the team to modern Swift development patterns.
- Researched VisionKit and wrote the app's most differentiating feature: its intelligent scanning and field navigation system.

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

Wells Consulting develops iOS apps for clients.

- Delivered a novel warehouse management system iOS app. It orchestrated tasks such as returns, order fulfillment (including pick, pack, and ship), and employee activity. The new system enabled the client to minimize headcount required for effective warehouse operation.
- Coordinated with outside technology vendors to integrate Bluetooth Low Energy (BLE)-connected hand scanners for data entry and verification. The scanners notably reduced error rates in warehouse activities.
- Built a website that enabled customers to visualize customized products. It significantly cut costs and delivery time by reducing dependencies on professional illustrators and designers.
- Constructed a retail point-of-sale and inventory management iOS app. It leveraged the warehouse management system to adjust inventory during sales, returns, and refunds. Most importantly it allowed the client to cut credit card transaction fees by integrating with less expensive payment processing services.

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

Bespoke Technologies, acquired by 3D Systems, designed custom hardware and software used to create 3D printable models for personalized orthopedic braces.

- Created the iOS application that coordinated the entire system. It provided guidance (live video and overlaid alignment guides) to users as they operated the scanner and placed orders for braces.

After 3D Systems reallocated some of its resources away from healthcare, the Bespoke project was put on hold, and I joined other teams as needed.

- Developed a web application that managed a photogrammetric scanner, capturing facial features for creating 3D printed figurines
- Created software to automate the construction of surgical Le Fort guides and plates.

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

3VR developed custom hardware and software solutions for video security, business analytics, and crime prevention. The system performed real-time video analysis and generated events in parallel with recorded video, facilitating swift post-incident investigations.

- Guided the startup from UI prototypes to fully functional applications. Established the applications group and recruited five skilled developers to join the team.
- Architected and helped build two fundamental applications. First was the on-device and standalone desktop application for managing incident cases, configuring alerts, and presenting live and historical events and video. Second was the application to configure, monitor, and update hardware devices in challenging geographic and low-bandwidth environments.
- Managed the rewrite of an acquired company's dated crime reporting website. The new website included a new look using current front end technologies and its back-end reduced the cost of operations by automating previously manual processes.
- Guided the team in embracing contemporary software development practices, including design documentation, adhering to software code standards, writing unit tests, and implementing continuous integration.
- Successfully shipped seven significant software versions to Fortune 1000 companies.

# Historical Experience

## **Sr. Software Engineer, Black Pearl (2004)**

Black Pearl created software that harnessed predictive analytics to analyze data, predict trends, and recommend informed business decisions.

- Added application-wide, cut, copy, and paste for internal objects.
- Developed the icon and log management subsystems.
- Implemented permissions to restrict functionality based on a user or role.

## **Co-Founder, RTzen (2001–2004)**

RTzen developed software to empower artists, rather than programmers, to create HLSL code.

- Co-founded the company and played a key role in managing its infrastructure, growth, and technical direction.
- Contributed to the design and implementation of an innovative 3D system architecture. It included novel features like transactional storage, infinite undo functionality, full scripting capabilities, built-in licensing support, and a concurrent job system.
- Developed custom user interface controls to enhance the workflow of 3D artists. They included a wire graph editor and a real-time enhanced and user-friendly property editor.
- Created a real-time shader application that enabled artists to generate intricate HLSL shader code using an intuitive drag-and-drop visual interface.

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

The 3D modeling division created software that empowered artists to create content for games and movies and for architects to model, visualize, and generate animations for realistic walkthrough presentations.

- Wrote a plug-in renderer that generated line segment views and animations.
- Independently designed and patented the i-drop family of features.
- Established and lead a team responsible for a new product targeting game level editing hobbyists and 3D web content makers.

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

Rasna, acquired by PTC, develops software to assist mechanical engineers in building, testing, and optimizing their designs using software prototypes.

- Broadened platform support by enabling the product to function on Windows 95.
- Contributed significant enhancements and new features to the existing product.
- Independently ported an acquired 3D architectural modeling product to Windows.

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

SL develops software for monitoring multi-vendor business middleware.

- Increased the addressable market by porting their software to Windows.
- Contributed significant code to object rendering, font management, licensing, and string processing.

# Supplemental Information

## **Patents**

Some of my work has led to patents. In these cases I worked closely with patent lawyers and other co-inventors. Notably, in the patent US7019743, the inventor is listed as Michael Pittman, also known as 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 Computer Science

Bachelor of Science in Mathematics