

# Michael Welles

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## Overview

Years of experience leading technology teams on projects from conception to completion. Focuses on mobile, emerging technologies, and digital media. Comfortable working at both the micro level (building container/codec/format internals) and the macro level (building highly available and scalable platforms for digestion, management, transformation, distribution, and consumption of media). Particular expertise in building highly available web applications and infrastructures, with a recent focus on mobile and emerging/embedded technologies.

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## Work Experience

- 2013 - Present **Director of Mobile**, *Huge*, Brooklyn, NY.  
First as principal architect, then engineering director, focusing on mobile and emerging technologies. In most recent role, head 20+ person cross-functional team of iOS, Android, and backend engineers ? as well as QA analysts, designers, and product managers. Institute and evangelize agile best practices, continuous integration, continuous delivery. Sponsor new technology investigations and initiatives (interior wayfinding / beacons, leap motion, arduino, and embedded system prototypes), as well as internal outreach initiatives (meetups, open source efforts, etc.). Notable client work includes designing firmware and managing application development teams for a ?smart? bluetooth audio accessory and developing a companion application for a AAA game publisher that allows players to scan their own likeness to be rendered as themselves in game avatar.
- 2011 - 2013 **Manager of Mobile Technology**, *Consumer Reports*, Yonkers, NY.  
Founded mobile applications and new media group. Built in-house team responsible for mobile applications development. Responsibilities included overall mobile product strategies and technical execution. Launched flagship ratings application and managed external vendors in the maintenance of a portfolio of legacy applications.
- 2008 - 2011 **Senior Software Engineer - iTunes Store Video Workflow Group**, *Apple, Inc.*, Cupertino, CA.  
Senior engineer on a team of five responsible for the encoding and assembly of all iTunes video media. Responsible for the encoding toolchain used by the processing cluster, as well as for the specification of formats of deliverable media, the test suites to validate the formats, and the creation of reference media for use by hardware teams in compliance testing. Heavily involved in the continuous improvement, day-to-day operations, business production, and engineering of the visual and audio quality of Store media. Led two major rewrites of the application ? the first for the launch of the HDTV product and the second for the launch of international video and television.
- 2007 - 2008 **Senior Software Architect**, *The New York Times*, New York, NY.  
Led effort to incorporate continuous integration into the development and release processes of NYTimes.com. Created tools, procedures, and processes for the testing and packaging of software through the chain of production. Authored tools to help with process automation. Supervised overall architectural design and implementation of effort to develop a new content management system for news.

- 2006 - 2007 **Founder, Senior Partner**, *Bangstate Inc*, New York, NY.  
Resumed role as senior partner, concentrating on web application using Ruby on Rails and other open source technologies. Strong focus on best practices, test driven development, short milestones, iterative development, and close client interaction. Also served as acting CTO for haystack.com, a social networking site focused on music discovery and full album streaming content. In that role, led five person design and development team.
- 2004 - 2006 **Systems Architect / Lead Developer**, *The Associated Press*, New York, NY.  
Designed and developed highly trafficked and dynamic systems for the distribution, digestion, and display of multimedia news content. Led team of seven developers, QA staff, and system engineers. Notable project was the development of AP Hosted Elections, the system that gathered, processed, and presented the real-time results for the 2004 US presidential elections and has been used as the primary source for election returns for most major news organizations worldwide.
- 1998 - 2004 **Senior Partner**, *Bangstate Inc.*, New York, NY.  
Founded and managed a consultancy of five principal partners, and ten additional developers, designers, and administrators. Responsible for the business as a whole, as well as delivering individual projects. Clients included organizations such as The Associated Press, The American Bar Association, Atlantic Records, Forbes Magazine, CIR/SEIU, Time, Inc. Notable projects included: TNEWS, the Internet distribution platform of the Associated Press that used standards-based protocols (NNTP, IPTC NITF XML) to distribute content that had previously only been available in a proprietary formats over satellite; and developing handheld applications for use by Military Family Research Institute at Purdue University.
- 1996 - 1997 **Member, Technical Staff**, *SOS Corp*, New York, NY.
- 1995 - 1996 **System Administrator - Distributed Resources Management**, *PaineWebber Inc*, New York, NY.
- 1995 **Consultant/Programmer**, *onShore, Inc.*, Chicago, IL.
- 1994 **Jr. Programmer/Analyst**, *The Social Science and Public Policy Computing Center at the University of Chicago*, Chicago, IL.

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## Education

- 1990 - 1994 **Bachelor of Arts in History**, *The University of Chicago*, Chicago, IL.

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## Skills

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| Languages  | Swift, Objective-C, C, C++, Javascript, Ruby, Java, C#, Python, Lua, Lisp   |
| Frameworks | iOS, Android, Cocoa, Rails, QuickTime, WebKit, Node, Hibernate, Spring, Struts, Rails, Java, MQ Series, pthreads, etc... etc... |
| Systems    | Experience with almost every flavor of Unix, deep knowledge of Linux / BSD/ OSX / Unix internals.                               |
| Media      | QuickTime, H.264, MPEG-4, MPEG-2, JPEG, TIFF, MP3, WAV, AIFF, etc..   |

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## OSS Software

OSS Contributions not otherwise noted in work history

- Author, BeaconScanner, desktop utility for OSX for detecting and managing iBeacons. <http://tinyurl.com/j6rpfbc> (2014)
- Maintainer of libtiff. <http://www.libtiff.org/> (1999-2001)
- Contributor to the Debian bootfloppy project.

- Author of the `changedfiles` system, a combination of a kernel module and a user space client that provided real time notification of file system modifications and offered programmatic hooks for any arbitrary actions to be taken in response. Included inline support for triggering filesystem replication by via `rsync`, and `FTP`, as well as `mysql` database import. Became obsolete with the introduction of `DBUS` to the Linux kernel.