

Joseph Mattiello

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Profile

- Engineer & Hands-on Engineering Leader – Mobile, Full Stack, Systems Architecture, CI/CD + DevOps/Automation. I've built web and mobile native frontends, backends, mobile applications, infrastructure, embedded/IoT systems.
- Mobile Architect, Engineer, & Leader. Leading iOS & Android teams. High level of experience developing on both iOS & Android Platforms, native or cross-platform toolkits (ReactNative, Fuse.io).

Professional Experience

Matti Media LLC

Founder

New York, NY

May 2021

- Creator of Provenance-EMU, a Pure Swift multiple video game console emulator for iOS/tvOS/macOS
- Ported dozens of C/C++ emulators for Swift Package manager, ARM platforms and various other performance, compatibly patches
- Completely Swift UI user interface and native iOS integrations such as Spotlight, QuickLook, FileProvider, Stickers, Siri extensions

Fitness AI

Contract iOS Engineer

New York, NY

April-May 2021

- Improved project organization
- Added crash and console logging for errors, warnings and exceptions with breadcrumbs
- Added new UI features, re-ordering drag and drop of items in table views
- Performance and stability fixes

Cameo

Principal iOS Engineer

New York, NY

October 2020 – March 2021

- First Native iOS Engineer in an existing mature ReactNative stack.
- Add HD async compression video support, improving video quality, reducing bandwidth and AWS compression costs.
- Added AR filter support. Improve visual quality and simplicity at request from top talent for better publishing quality.
- Focus on performance & tight features integration.
- Reduced memory overhead, startup times, login times and network optimization.
- Consolidated CI/CD pipelines from a mix of shell scripts/CircleCI to GitHub actions for faster 10x+ speedup in PR validation.
- Cameo – [Web App](#) / [App Store Link](#)

NewsCorp Inc.

Director iOS Platform (Global HQ)

New York, NY

2019 – February 2020

April

- As iOS platform lead, I was one of 8 people (4 directors + 4 deputies) working in the central NewsCorp app platform team. Responsibilities included directing, managing developers that were either; NewsCorp internal, NewsCorp sub-brand internal, contractors for platform or brand apps.
- Managed iOS developers across multiple regions working in parallel on various apps (NYC, Argentina, London, Ukraine, Russia, Hong Kong, Sydney & Bangalore)
- My team built the core foundation that all NewsCorp brands (DowJones, NYPost, The Australian, Barrons, Times UK +) use to develop their brand-specific apps. I directly managed all code in our platform SDKs, as well as cover pull requests and engineers from our internal pool that were loaned out to brands to work on their apps in coordination with developers they may hire themselves to build on our platform.
- Our SDKs were treated as private "open source". Internal or brand developers create feature requests, pull requests, and we hold platform town halls so that brand contributions and additions to the common platform were rapidly integrated and shared across the greater NewsCorp umbrella of applications.
- Other responsibilities include the setup of CI/CD for brand apps, documenting and providing tutorials and code samples and app templates for developers using our internal platform to consume.
- Opened and hired several senior developers for the new full-time iOS satellite team in Barcelona, in addition to restaffing/ training our existing teams in Argentina (Spark outsourced), Bangalore (NTS sub-corp) and the Ukraine/Russia (EPAM outsourced).

- Hired, trained and led the new team for brand new brand [Knewz for iOS](#). *Knewz* was a personal project, created and overseen by CEO [Robert Thomson](#), with final sign off at launch by Chairman [Rupert Murdoch](#). *Knewz* was quickly noticed by and requested to coordinate an app store promotion unprompted from *Apple*. 4.5+ rating during my tenure.

Salido Inc.

Lead Developer

New York, NY

August 2018 – April 2019

As a Lead Developer at Salido Inc, my responsibilities include managing my front end development team, coordinating with back end and other front end teams on feature development and leading architecture design on new technical business relationships / 3rd party vendor integration.

- During integrating with legacy vendors, I created the first Swift native XML-SOAP framework with full **Codable** support. I was also in charge of refactoring the original monolithic project structure into independent frameworks using separate repositories, streamlining coordination with our global development team utilizing integration automation tools (Circle CI, Fastlane, Carthage + Rome, bespoke scripts) to resolve any issues with independent teams clobbering or stalling their feature development due to a history of QA and merge issues resulting from the legacy single repo/workspace architecture.
- I was also active in creating development tools, documentation and templates to assist other engineers to conform to improved organization and coding standards. I introduced the team to Promises, RxSwift, MVVM-C, Clean Architecture and Obj-c to Swift Inter-op.

Hearst Digital News

Lead Mobile Architect / Team Lead

New York, NY

May 2012 – June 2018

- Hearst Digital News Team - <https://www.hearst.com/newspapers>
- As the lead developer, my responsibilities include; code submission review, peer training, ticket delegation, build submission and release schedule in conjunction with a project manager. I manage a team of several dedicated mobile developers with occasional cross-development with our web and back end teams.
- Over the course of a year, we had several update releases and have maintained a 4+ star rating in the App Store. While releasing new features, I took the initiative to convert the codebase to Objective-C 2.0 and ARC and had seen an 80+% reduction in crash reports per capita and a 30% reduction in memory footprint. I also did significant refactoring of our shared code base used across our four apps and separated it into a tiered build system of shared base and UI libraries, paving the way for future apps on both mobile and desktop and allowing us to share code with other development teams at Hearst where there previously was not concise code clarity and separability.
- Starting in Summer 2015 through my departure, I built a completely ground-up new app in a blend of Swift 2.0, Obj-C with a full CoreData persistence back end and CoreText, storyboard with size classes front end. The app is universal support iPhones and iPads running iOS 8+. We supported Apple Watch, Today Screen, Force Touch extensions as well. I maintained a role as both lead architect and developer with support from two freelance developers from an outsourcing firm. Example from one of our smallest markets, San Antonio. [App Store Link](#)

Sooloos (Roonlabs)

Software Engineer (iOS/macOS)

New York, NY

May

2010 – April 2012

- *Sooloos* is now *Roon Labs* <https://roonlabs.com>
- Project 1 - To link the existing audio decoders and playback functionality in C#/Mono to native Core Audio code. This was resulting in significant contributions to the Novel MonoMac project for several missing Cocoa frameworks.
- Project 2 - Developing the native event and UI code for OS X. Meridian is currently developing a cross-platform C#/ OpenGL based desktop application. My duties included native font rendering, window and menu management, mouse and keyboard events, native text entry and processing forking and out of process tasks. Various MonoMac patches were also developed. Intimate knowledge of the NSApplication runloop process, event handling, and OpenGL compositing systems was also required.
- Project 3 - Developing an iOS app with the purpose of two-way syncing and playback of a users Sooloos media library. This required interfacing and expanding with an existing cross-platform C toolkit for synchronized network communications and database management with the desktop client. The project was written native in Objective-C. I was the sole coder and UI designer for this app. This project was completed but released delayed by other platform timelines.
- Project 4 - Overhaul of our iPad remote control software, Core Control (formally called Sooloos). The original project was coded in LUA using iPhone wax. It relied heavily on network communications between the host and remote iOS systems. The project required extensive UI modifications and the addition of many new UI layouts and a host of new functionality, and expanding our network protocol. Most newly written code was in LUA, with some performance-critical sections completed in Objective-C & C. The application was released to overwhelmingly positive reviews and was rated at over 4.5 stars. [Original App Link](#) / [Remake](#)

Sense Networks, Inc.

Software Engineer (iOS/DevOps)

New York, NY

March

2008 – March 2010 • My initial duties were to design and create [Citysense®](#) for the iPhone. In doing so, I was also named on [several patents](#) for my involvement in improving the backend data analysis systems. Citysense was a unique application for iPhone that started development prior to the release of the official Apple SDK. I was hired for my knowledge in API hack-ing and was in charge of the full codebase and design. Citysense has been featured on [GigaOM](#) & [NY Times](#).

- Following *Citysense*, I took on an additional role of network and security engineer. I was in charge of creating a sound office and co-location environment, which included the setup of our office intranet, firewalls, VPN with our colo, file and printer sharing, and OS X Collaboration services, including iCal, Address Book and WIKI servers. I was also in charge of building, testing, and deploying our Hadoop systems for our analytics platforms.
- As a software engineer, I also created various utilities for managing and exploring our large datasets and also authored large patches for the GNUstep tool PBXBuild that converts Apple XCode projects into GNUstep Makefile projects and am an official FSF/GNU project developer.
- My final project at Sense Networks was [CabSense](#) for the iPhone, where I was both a developer and a contributing designer in conjunction with our Android team. I contributed substantial pre-rendered assets along with writing the 'Radar' view in Quartz. I also spearheaded the effort to ensure security and authenticity in server/client communications when dealing with client input and tracking. Security, integrity, consistency, reliability and performance were my main objectives throughout the project. Along with the application, I created reusable libraries for third parties to interact with our CabSense data on other C and Cocoa platforms. CabSense has since been featured on [VentureBeat](#), [ZDNet](#), [NY Times](#).

Previous Experience

People Security – Security Consultant (Contract)

Oct 2007 – Dec 2007

Researched and developed training materials for "secure coding practices" online school in direct partnership with Dr. Hugh Thompson.

Examples include avoiding pitfalls such as "stack overflows", "nop sleds", "off by one", and other "buffer overflow" attacks and more advanced attacks against randomized stack and library addresses.

AT&T Tech Channel – Associate Producer

Aug 2007 – Nov

2007

Researched and consulted on guests and topics for ATT Tech channel. I personally interfaced with and managed bookings for, including topics of discussion, with names such as; Emanuel Goldstein (2600 magazine editor), Whit Diffie (RSA), Bill Cheswick (Firewalls), Jack Dorsey (Twitter), H. D. Moore (Metasploit) and more.

I worked out of the main Bedminster, NJ, former Bell Labs research facility.

Student Association Director - University At Buffalo

Fall 2004 – Spring 2007

Personal Projects / Freelance

- [Provenance](#) - tvOS & iOS multi-platform emulator. Co-author and PM. <https://provenance-emu.com>
- [Hero Transitions](#) - New Maintainer <https://github.com/HeroTransitions/Hero>
- [RxReachability](#) - New Maintainer <https://github.com/RxSwiftCommunity/RxReachability/>
- [Bass Station 2 for Max/MSP](#) - <https://github.com/JoeMatt/BassStationIIMaxForLive>
- [iPhreak](#) - Native DTMF generator for the Apple iPhone <http://iphreak.googlecode.com> (Objective-C/GPL) Pre-official iPhone SDK as part of the initial iPhone software hacking effort
- [Question of the Day](#) - iPhone app. Contracted to add features to existing app. [iTunes Link](#)
- MixMan DM2 USB/MIDI driver for OS X (unofficial, reverse engineered protocol) Home, [MacUpdate](#) Reviews (C and C++ mix for driver. Obj-C and Quartz Composer for front-end)
- [OS X driver for Starr Labs USB Guitar](#) [Product page](#) (Objective-C & C)
- [OS X driver for Aurora Mixer](#) - [Google Code project](#) (Objective-C & C)
- [Pbxbuild](#) - Major patches submitted to allow the conversion of complex, multi-platform X Code project files to Linux & Windows compatible GNU Make files for single run triple platform compilations. [Details](#)

Other Open source project contributions (partial):

[XMLCoder](#), [Reicast](#), [RxAlamoFire](#), [sReto](#), [PokeMini](#), [GLideN64](#), [ReactNative](#), [MMDrawerController](#), [MonoMac \(Xamarian\)](#), [UIForLumberjack](#), [EGYWebViewController](#)

Experimental prototypes in:

Blockchain, Arduino / Embedded ARM, ESP32, LoRa, Bluetooth LE, WiFi IoT mesh networks

Education

University at Buffalo
BS, Computer Science

2004 - 2008