

# Patrick Do

Senior iOS Engineer

## Contact

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## Skills

Swift



Objective-C



SwiftUI



Kotlin



Javascript



Amazon Web Services



Firebase



DevOps



Flutter / Dart



I am seasoned mobile application developer and architect with more than 10 years of experience.

I wrote my first iOS game application at age of 15, and published that to store to see how the world is reacting to my first application. At college, I was involved in several non-profit projects and R&D projects, under the guidance of professors and senior mobile engineers.

Since then, I was so lucky to work on tons of different applications, which were not limited to a certain industry.

I also have solid understanding about the backend technologies including PHP, and I am so comfortable with javascript frameworks.

I am now looking for new challenge and I am ready to start immediately.

I am US citizen and I am quite open to Contract / Contract-to-Hire / Full-Time roles.

## Employment History

May 2020 –  
Apr 2022

### Senior iOS Engineer

*Onseen, Columbus, OH – Contract*

I worked on restaurant POS application for Resy, which was acquired by American Express couple of years ago.

- Participated and made contributions to decision making process in multiple occasions.
- Suggested and led creating pod libraries that are reusable in multiple company projects.
- Developed numerous new features and integrated into POS applications seamlessly.
- Assisted backend developer with testing backend APIs via Postman.
- Worked well in group problem solving situations

Technologies: Swift, SwiftUI, GoogleMaps SDK, CoreLocation, Stripe, Plaid, RealmSwift, CoreData, PhotoKit, StoreKit, Git, Jira

Sep 2017 –  
Apr 2020

## Senior iOS Engineer

*LiveForms, Columbus, OH – Full Time*

I mainly worked on form-builder iOS application.

I worked at cross-functional team, and mentored junior developers.

- Designed system architecture of form-builder platform, which is similar to GoogleForms but much more useful and especially designed for mobile phones.
- Integrated the web-based invoicing system into iOS application.
- Instructed junior developers on use of Swift programming language, creating collaborative learning environment to onboard personnel.
- Conducted pair programming for junior developers
- Worked closely with lead designer to improve the user experience.

Technologies: Swift, Objective-C, GoogleMaps SDK, CoreLocation, RealmSwift, MVVM, Git, Jira

Sep 2015 –  
May 2017

## iOS Engineer

*Adamo Software, Hanoi, Vietnam - FullTime*

I worked on multiple projects while working at Adamo Software.

- Optimized and refactored a SpriteKit scene in the way that it can easily be switched between two different display order options..
- Integrated MapBox SDK below SpriteKit scene in the way they were all both visible at the same time without memory problem.
- Built animations with SpriteKit that were in sync with all components inside the scene.
- Create an app layer that connects the SpriteKit scene with MapBox map which updates map position every time scene was dragged.

Technologies: Objective-C, MapKit, MapBox, iOS, AWS

Aug 2012 –  
Aug 2015

## Undergraduate Research Assistant

*Hanoi University of Science and Technology*

While studying at HUST, I was so lucky to attend multiple R&D projects initiated by college of engineering.

- Attended in researching and demoing the design patterns available in mobile application development.
- Attended in creating facebook-like mobile application for R&D purpose.

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## Past Projects

### Resy – Restaurant Management Software

<https://apps.apple.com/us/app/resyos/id1440522249>

I worked on restaurant POS application for Resy (as mobile developer at Andela), which was acquired by American Express couple of years ago.

As a senior iOS developer, I participated and made contributions to decision making process in multiple occasions.

Also I suggested and led creating pod libraries that are reusable in multiple projects.

I also implemented numerous new features into POS applications and assisted backend developer with testing backend APIs via Postman.

### Good Eggs – Grocery Delivery

<https://apps.apple.com/us/app/good-eggs-grocery-delivery/id1020495070>

I helped moving the codebase toward a new architecture using ReSwift and VIPER, in order to more rapidly iterate on features. One notable feature I built was the ability to preorder for various holidays and events for which the company sets up special preorder availability.

A part of maintaining and iterating on the app was also iterating on the backend API that coalesces requests from the iOS app and proxies them

to the main application server. For full-stack features, I worked on all three codebases.

## **IntelliQuit – Measure nicotine level**

<https://apps.apple.com/us/app/intelliquit/id1449475599>

IntelliQuit is an iOS application that helps users reduce tobacco usage by monitoring the level of tobacco in their urine.

The app takes an image of a used NicCheck strip and then analyzes the given image using computer vision.

My role was the development and maintenance of iOS app and back-end API.

Project Details:

- Wrote the iOS app in Swift and used MVC architecture.
- Managed dependencies using CocoaPods.
- Implemented the UI using Storyboards, Xibs, and native code.
- Used OpenCV for the camera screen to detect the required elements inside the image; OpenCV is written inside C++.
- Achieved communication with the rest of the Swift code using Objective-C++ classes.
- Exposed the back-end APIs using REST API and the back-end runs on Node.js inside an AWS EC2 instance.
- Used Nginx for the proxy used for the API

## **TipTapGo**

<https://apps.apple.com/us/app/tiptapgo/id1195878373>

This application allows users to make a tip to service providers (such as waitress, bartenders) easily.

Application will search nearby service providers, and let user select one and make a tip.

Service providers will have either mobile application (service-provider app) installed on their phones or

wear a BLE-powered bracelet designed by TipTapGo.

In this way, customer app will search / pair with provider's application and payment is made between two.

## Technologies

- Swift, Java, Kotlin for mobile application
- Node for backend
- Angular for administrator console
- AWS, FCM, Cloudflare
- Stripe for Credit Card payment, Plaid for bank payment
- CoreBluetooth for BLE connection
- GoogleMaps SDK

## Roles & Responsibilities

- Made major decisions regarding the system architecture.
- Built iOS application (swift)
- Helped developing web admin console in Angular 10.
- Applied Agile methodology to break down into sprints and manage deadlines for iOS & Android,
- Web and Backend development

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## Education

Apr 2011 –  
Sep 2015

### **Bachelor of Science – Computer Engineering**

*Hanoi University of Science and Technology - Vietnam*