Nathan **Lanza**

iOS Developer · Physicist

San Francisco | Los Angeles | Florida | Colorado

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Education

Florida Atlantic University
Boca Raton, Florida

M.S. in Physics
Jan. 2015 - Dec. 2015

- PhD candidate in the field of Loop Quantum Gravity.
- Research on the path integral formulation of quantum gravity (called spin foam theory) and the coupling of fermions to quantum gravity.

Hack Reactor - Mobile Makers
San Francisco, California

iOS Bootcamp
Jan. 2016 - Mar. 2016

- Full-time, eight week intensive iOS development course.
- Covered both Swift and Objective-C. Included protocol-oriented programming, generics, optionals, functional programming and more.
- Frameworks studied included UIKit, Foundation, CoreData, CloudKit, Firebase, Azure, NSOperation, GDC, MapKit, CoreLocation, CoreMotion, and others.
- Top student throughout the entire course as evaluated by peers and instructors.

Experience

nBack

HTTP://WWW.LANZA.IO/PORTFOLIO/NBACK

- Available on App Store here.
- iOS app written in Swift. Responsible for entire project. Mental exercise that research has shown to improve working memory.
- Uses Core Data to store gameplay history. Utilizes custom protocols, delegates nad helper classes that were written to facilitate better code organization around the schema.
- Entire app is storyboard-less. Utilizes the Coordinator pattern to better organize code and to relegate navigation and View Controller management to a more proper location in the code. View Controllers
- Makes use of generics, protocols, protocols with associatedtypes, protocol extensions, do/try and various other Swift features.

nTip+

HTTP://WWW.LANZA.IO/PORTFOLIO/NTIP

- Available on App Store here.
- iOS app written in Swift. Tip calculator.
- Locale aware to utilize proper currencies.
- Uses Core Data to store your bill history.

nWorkout+

HTTPS://GITHUB.COM/NATHANLANZA/WORKOUTLOG

- iOS app written in Swift. Responsible for entire project. Will be published to the App Store in the coming weeks.
- Uses Core Data for storage. Custom protocols, delegates and helper classes were written to facilitate better code organization around the schema.
- Entire app is storyboard-less: all View Controllers and navigation are instantiated via code enabling generic ViewControllers for the most efficient code reuse.
- Makes extensive use of generics, protocols, protocols with associatedtypes, type-erasure, protocol extensions, do/try and many other Swift features.
- Uses container, MVC and MVVC patterns, GCD, custom keyboard, programmatic constraints.

Blend Chat

HTTP://WWW.LANZA.IO/PORTFOLIO/BLEND

- iOS app written in Swift. Responsible for backend.
- Wrote the backend with Firebase, Azure and CloudKit as a test of their capabilities before the project manager ultimately decided to stay with Firebase.
- Included AFNetworking, FacebookSDK and Google FirebaseUI.
- Coded much of the apps structure and laid out the MVC hierarchy for the other more UI centric developers.
- Was responsible for cleaning, organizing and maintaining the code written by the other developers.
- Was in charge of the git repository and handled all merges and conflicts.

TableViewCellWithTableView

HTTPS://GITHUB.COM/NATHANLANZA/TABLEVIEWCELLWITHTABLEVIEW

- Framework which contains a UITableViewCell with an embedded UITableView in the contentView.
- Written for the nWorkout+ app but noticed a lack of a publicly available solution and a need for one.
- Will be available on CocoaPods soon.

Pascal Compiler

HTTPS://GITHUB.COM/NATHANLANZA/PASCAL-COMPILER

- Early stage command line Pascal compiler translated to Swift. Original source is in Java.
- Educational side hobby to learn compilers/interpreters.

Honors & Awards

PHYSICS

2013	**Undergraduate Award in Physics**,	Scholarship for excellence in physics.	*FAU*
2013	**Dean's Award in Science**,	Scholarship for excellence in science.	*FAU*

Writing

http://www.lanza.io   *http://www.lanza.io*

SWIFT AND IOS BLOG   *Jun. 2016 - PRESENT*

- Write educational blogs about various topics in Swift and iOS programming.