

Shane Rudolf

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Portfolio: <https://shanerudolfworktive.github.io/portfolio/>

Co-founder of Ai Nature

Senior Developer

A Senior developer offering more than six years experiences designing, implementing, integrating, testing and releasing impactful applications developed in diverse, collaborative environments for Mobile and Web platforms.

JavaScript Development

ES6 / ES8 – Main language for React/ React Native development.

React / React Native – Cross Mobile and Web platform development.

Storybook – Component Builder that is easy to test, document, and reuse.

Flux / Redux – Pattern for data flow and state management.

GraphQL – Dynamic payload request and self-documented API.

Flow / Lint – Static type checker.

Jest / Enzyme – Unit-test to ensure code quality.

Detox – Gray box end-to-end automation test.

Remote Debugging –

Dynamic code update to speed up development.

Webpack – Dependency graph builder for bundling management.

Responsive Design / Media Query – Scaling component to fit varieties of screen sizes.

Animated – React Native Animation API which runs on Native engine.

NodeJS – Fast and Scalable JavaScript run time environment.

MongoDB – Document oriented disk storage.

Bcrypt – Encrypt user sensitive data.

Mocha – Powerful and flexible JavaScript testing framework.

Http Proxy – Load balance requests.

Express – Web application framework build on top of NodeJS.

PostgreSQL – Relational database.

Axon– Socket.io for real time web communication.

Bluebird – Promises to maintain clean asynchronous code.

Redis – Key-value in-memory cache.

Passport – Create authentication APIs.

Firebase – Real time remote database using socket io.

Heroku – A simple cloud platform to distribute web service.

Cassandra – Column based NoSQL.

Android Development

GCM – sending remote push notification.

Crashlytics – monitor consumers' feature usage and bug report.

Fabric / HockeyApp – deliver apps to testers and customers. It is similar to Play Store.

Location Based Service – track user's location.

Git/SVN – source control.

Tower – a Git IDE with GitFlow.

Google Map – display locations.

Broadcast Receiver – get notifications from Android system.

Emulator – test wide range of screen size and resolutions.

SQL3 / Realm – design and store relational data.

Volley Lib – for REST (and similar) service integration.

kSOAP2 – for SOAP service communication.

Testing Framework – create unit test, UI test, performance test to ensure app quality and stability.

Fragments – dynamic UI to supports wide variety of screen size and resolution.

GSON – easy marshaling and unmarshaling JSON.

Gradle – manage dependencies and library integration.

MAT – memory profiling and tracking.

Butterknife – dependency injection. Easier than findViewById().

Dagger 2 – dependency injection for MVP pattern design.

Robotium – write automation test.

Eclipse/Android Studio – for all Android development.

Monkey – random UI testing to find corner cases.

Exoplayer – stream HLS videos.

Vitamio Lib – stream RTMP videos.

BLE – pair and communicate with hardware devices.

Java – primary language to develop Android apps.

Firebase – real time remote database using socket io.

rxJava – functional programming and composition in Java.

CircleCI – Automatic integration system.

ReactJS – Efficient and flexible Javascript Library for building HTML UI.

Kotlin – A concise, expressive and robust new programming language for Android Development.

Xamarin/C# – Cross-platform IDE (Visual Studio) for building Android and iOS native App using C# .

iOS Development

Core Data / Realm – design and store relational data.

AFNetworking – use for low-level network calls.

RestKit – for REST service integration.

ARC – memory management.

CoreLocation, MapKit – native iOS map to show user locations.

SpriteKit – native iOS kit to develop games.

AutoLayout/Adaptive Layout – dynamic GUI to support different screen size.

XCTEST – create unit test, UI test, performance test to

ensure app quality and stability.

GCD/NSOperation – multi-threads to boost performance.

Push Notification – remote notifications to keep user informed.

Alcatraz – package manager for Xcode.

PaintCode – A GUI tool to draw and generate Core Graphic codes.

QuartzCodeApp – A GUI tool to animate and generate Core Animation codes.

Objective-C / Swift – classic and modern language to develop iOS app.

Firebase – real time remote database using socket io.

AutoLayout/Adaptive Layout – dealing with difference screen size and orientations.

AVFoundation – low level audio, video, and animation process.

BugSee – Video record for easier bug reproduce from test users.

Xamarin/C# – Cross-platform IDE (Visual Studio) for building Android and iOS native App using C#

Other Languages

jQuery
Cordova
AJAX
HTML5

CSS
PHP
AngularJS
Ionic Framework

Cocos2d
Lua
C++
C#

Professional Experience

Omnigon/NFL. Lead Android and React Developer (Remote)

Feb 2018 – Now

- Lead and develop NFL mobile app using React and React Native stack to achieve cross platform development.
- Design Flux/Redux pattern for state management and data delivering.
- Use Storybook to build testable, reusable and scalable components.
- Integrate GraphQL to achieve dynamic payload query.
- Define best practice for consistent performance and code standard.
- Implement Flow/Lint to mimic strong type checking.
- Apply Code Push and Remote debugging to speed up development task.
- Use Jest, Enzyme, and detox to do full integration tests.
- Configure Webpack to achieve web and mobile parallel development.
- Setup developer friendly build systems.
- Present new tech trend to improve team members overall knowledge.
- Apply responsive design for web and mobile to fit variety of screen sizes.
- Integrate Animated API to improve UX.
- Use ES6 and its major features.
- Perform Code review and mentor to ensure code quality.

CyberCoders - Google/VersaMe, Lead Android and iOS Developer. (Remote)

Feb 2016 – Jan 2018

- Lead and develop Google and VersaMe projects using agile methodology involving planning, requirements gathering, estimating, developing, testing, and releasing.
- Design and architect application using advanced MVC patterns.
- Relational database design using Realm
- Performance tuning using advanced caching mechanisms.
- Integrate Google GCM and Apple Push Notifications to keep user updated.
- Integrate Ably real time web service.
- Memory Profiling to monitor memory usage and catch leaks.
- Using WebView to create a JavaScript layer for cross platform communication.
- Use v7 support Material Design to enhance User Experience.
- Write tests using Android Testing Support Libs to ensure application quality.
- Design documentations with UML diagram to meet Google's requirements.
- Integrate Discourse forum for user to discuss ideas in our environments.
- Use data-binding for clean and robust codes.

- Practice using RxJava for functional programming and composition in Java.
- Automatic Integration using CircleCI to distribute to HockeyApp.
- Prototype new features using ReactJS.
- Experiment the concise and robustly feature of Kotlin Language.
- Develop new APIs in Firebase using NodeJS.
- Architect Mvvm pattern using MvvmCross.
- Implement in-app-billing.
- Identifying various security issues in the app.
- Creating customizable Views.
- Building cross platform apps using Xamarin and C#.

Razer Inc. Lead Android & iOS Developer.

February 2015 – February 2016

- Lead and develop multiple projects from scratch using agile methodology involving planning, requirements gathering, estimating, developing, testing, and releasing.
- Hardware integration through BLE, Network Access Point, and Wi-Fi Direct.
- Design and architect application using advanced patterns such as MVC and MVP.
- Build dynamic and custom animations to improve navigation flow and user experience.
- Integrate live stream videos with YouTube and Twitch.
- Create local and remote push notifications to keep user well informed with their wearable devices.
- Data persistent using SQL, XML, and JSON.
- Performance tuning and memory profiling to ensure product quality.
- Build Cross platform development using Cordova.
- Fully integrate native Android/iOS API to ensure top performance.

SIMBiosys – Verizon Telematics, Android Developer

January 2014 – January 2015

- Develop high performance Android application to allow users remotely control their Mercedes-Benz vehicle.
- Develop Test Cases, Test Procedures and Scenarios to test system against defined requirements.
- Integrate GCM push notification to keep user updated.
- Design, architect, and build mock service for testing.
- Integrate Google map (AutoNavi map for China) to keep track of user's vehicle.
- Create session management to provide convenience and secure login.
- Performance tuning and memory profiling to ensure product quality.
- Integrate Volley Library to handle Restful network communication.
- JSON and XML Marshalling and Unmarshalling.
- Build and Maintain API Documentation using UML diagram and HTML for web page.
- Refactor and maintain existing codebase.

SIMBiosys Mobile Solutions Inc. Android Developer Freelancer

July 2012 – January 2014

- Consult for multiple clients to develop consumer-facing products, which fully utilized the fast growing mobile market.
- Integrate client's IceCast API to play radio and display on air information.
- Create XSPF parser to extract song metadata.
- Develop schedule and promotion features to help customers keep track of salon usage.
- Allow users to create account through Facebook and Gmail account.

- Implemented Gallery View to display available coupons.

Idle Games Inc. Mobile Game Developer Intern

July 2011 – December 2011

- Using lua script on top of cocos2d to build cross-platform real time game.
- Implement Facebook login feature.
- Implement In-App-Purchase for both iOS and Android platform.
- Fix bugs, trace down errors, test, and maintain the code bases.
- Integrate remote analytical tools.

Education:

Capella University

Minneapolis, MN 55402

B.S. Information Technology with Mobile Development

Qualification:

Oracle Certified Professional, Java SE 6 Programmer.

Oracle Certified Professional, MySQL 5 Developer.