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github.com/StarPlayrX
StarPlayrX.com

Brief History

As a software engineer and designer, I have successfully worked within these five disciplines:

1. Security & Identity, client side (macOS)
2. Audio & Video streaming, client and server side (macOS, iOS, tvOS)
3. Arcade style games (iOS, iPadOS) including Brix3DAR created using ARKit
4. Graphical User Interface Design and User Experience (macOS, iOS)
5. Web Development, Ngnix, Node, JS, MSSQL and server side Swift

I started out learning Cocoa, Objective-C and AppleScript back in 2000.

My first task for Sherwin-Williams Graphic Arts was to create fully automated graphics software for their printing facility. By analyzing Adobe Illustrator files, I started out by reverse engineering PostScript's step and repeat code. My GUI known as Imposition Pro, or iPro increased production by 400-800%. It featured an easy to use a drag and drop Mac user interface. The IDE was Face Span and its computer languages were PostScript and AppleScript. It could process over 40 sheets of film an hour. The flats were 41.081" or 1043.46mm long on an internal drum unit. The imagesetter was a Fujifilm Luxel F9000 Sumo. Imposition pro could also add cut marks, color bars, and provide the operator's information. The software was used for over six years.

I have knowledge in Cocoa (AppKit), Cocoa Touch (UIKit), and SwiftUI frameworks. I've learned more than a dozen of Apple's own frameworks and I've created six of my own. I'm a self-taught innovator and have created and invented new software products at fortune 500 companies and startups. I use my imagination and creativity to solve technical problems. I find when working with a brand-new language or framework, I usually rely my creativity to come up with fast and efficient solutions. Most of my POC work I used as a basis for a new product or feature.

During the day, I specialize in Security and Identity. I work mostly with pre-login launch agents, Auth Plugins, macOS user interfaces, PAM modules, proof of concepts written in Swift, Peer-to-Peer networking using BLE, Login overlays, Virtual Smart Cards, Biometric policies and BiometricKit, Local Authentication, FIDO2/WebAuthn via REST APIs, R&D, Secure Enclave work and Public Key Cryptography.

During the night, I moonlight as a part-time iOS developer and have published video games, radio players, and a simple password manager at the AppStore. Most of my work at available on Github, StarPlayrX.

My dream job is to do something I love every day.

Computer Languages

Swift, Objective-C, C, C++, JavaScript, AppleScript and Server-Side Swift

Frameworks

SwiftUI, AppKit, UIKit, Foundation, Combine, AVFoundation, AVPlayer, ARKit, SpriteKit, SceneKit, CryptoTokenKit, CryptoKit, Common Crypto, Public Key Cryptography, X509 certs, PAM, Auth Plugins

In Development

Brix3DAR extrudes artwork on a wall to create an augmented reality 3D Break Out game.
IPTVee an accessible streaming video player for iOS, tvOS and macOS

Proof of Concepts

Pearity, A Virtual Smart Card that supports Apple's Login window and macOS.
Sudo Swift PAM, refactored Apple's TouchID PAM module added support for Apple Watch & Smart Cards.
BLEp2p, A Bluetooth low energy peer-to-peer demo supporting macOS and iOS using CoreBluetooth.
TouchDown, auto enters the user's password at the login window triggered by user's fingerprint match.

AppStore

Emoji Pass X password manager, UFO Emoji arcade game, FidgetX a fidget spinner for all ages
Space-Bar, a colorful take on the classic 2D break-out game created with Swift and SpriteKit
StarPlayrX accessible Sirius XM radio player for iOS (AppStore) and Mac Catalyst (StarPlayrX.com)

Education

Gaston College

Associate of Fine Arts
Art & Design, Computer Graphics (Mac OS)
Gamma Beta Phi Honor Society

WWDC 2015 Alumni

Swift 2.0 - UFO Emoji Wireframe, SpriteKit
Sat down with one of Apple Senior Designers on the look and feel UFO Emoji, side scrolling arcade game

Objective by the Sea 5.0

October 3 – 7 2022, Spain
The Art of Mac Malware training
Instructor Patrick Wardle

Experience

Senior Software Engineer

Beyond Identity, macOS Desktop Login Team

[BeyondIdentity.com](https://www.beyondidentity.com)

Security & Identity Products, FIDO2, WebAuthn, CryptoTokenKit, CryptoKit, Desktop Login

Jan 2022 – present

Created auth plugins, pre-login launchagents & mac desktop login POCs using Face ID & Touch ID. Engineered a FIDO2/Webauthn framework that allows iOS and macOS apps to authenticate. Designed a Virtual Smart Card that's compatible with macOS Desktop Login and Authentication. R&D of new products, innovations, paired programming, knowledge sharing and user interface design.

Senior Software Engineer

Jamf, Connect Team, macOS

[Jamf.com](https://www.jamf.com)

Security & Identity Products, SSO, OIDC, Secure LDAP, WKWebView, a Desktop Login

April 2021 – Jan 2022

Lead several projects including Google Cloud Password Sync and WebKit WebView Passthrough. Added application features and solved various bug fixes on Jamf Connect SSO and OIDC products. Worked with a team of Engineers and QA Testers in an Agile environment. Conducted daily code reviews consisting of Swift, Python, and C code. Wrote Swift unit tests with over 95% code coverage.

iOS tvOS macOS Imagineer

Todd Bruss, StarPlayrX

Swift, Objective-C, Shell

[StarPlayrX.com](https://www.starplayrx.com)

March 2014 – April 2021

Engineered StarPlayrX, an accessible third-party Sirius XM radio player. Designed IPTVee, an accessible iOS, macOS and tvOS TV player. Designed UFO Emoji side scrolling arcade style video game. Created Emoji Pass X, Password Manager app for iOS and macOS. Re-imagined Space-Bar, a colorful take on the classic 2D breakout arcade game. Developed several interactive frameworks, StarplayrRadioKit, SwifterLite, IPTVKit and GTCola. Worked with Swifter, Vapor, Perfect4 and other server-side swift frameworks. Designed a Sono Radio iOS app that allowed senior executives to listen to programming in their cars. Created an audio caching feature for Peloton, prevented audio interruptions during live sessions. Published several apps in the AppStore including UFO Emoji, Emoji Pass X, StarPlayrX. Developed bigMac, allows unsupported Macs to run macOS 11 Big Sur and macOS 12 Monterey.

Web Developer

SignUpGenius, a Lumaverse Technologies Company

JavaScript, MSSQL, ColdFusion, Server-Side Swift

SignUpGenius.com

March 2014 – April 2021

Invented the Theme Builder, allow customers and vendors to design their own sign ups.

Programmed metric reporting software used by marketing and executives.

Managed a workgroup of 30 Macs and was the go-to IT guy for all things Apple.

macOS iOS Engineer and Founder

Swift, Objective-C, AppleScript

NiceMac LLC

August 2002 – March 2014

Invented StarPlayr versions 1-3 and StarLightXM product lines,for macOS.

Communicated with SiriusXM satellite radio on various streaming projects.

Designed user interfaces for macOS, iOS and Windows versions of StarPlayr.

Created CloneToolX, macOS system backup software using Apple Software Restore.

Wrote AppleScripts, Automator tasks and Shell scripts.

Co-Creator of SiriusMac, very first macOS Sirius Satellite radio app for macOS.

Invented Imposition Pro, Graphic Arts automation software for Sherwin-Williams.