

JAMES FOLK

Roku Developer | BrightScript · SceneGraph · Video Players · Ads & Analytics | C++
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SUMMARY

Roku developer with player and app credits on four national channels, all live in the Roku Channel Store today: Xfinity Stream (led the Comcast team owning the Roku Video Player), Peacock (video player at NBCUniversal), discovery+ (screens and event-system work at Warner Bros. Discovery), and Gospel Stream (Principal Roku Developer for The Church of Jesus Christ of Latter-day Saints, empty repository through certification). Deep in the parts most Roku developers never touch: custom SceneGraph video players, the Roku Ad Framework with SCTE-35 and FreeWheel, Youbora and Adobe Edge analytics, and Rooibos test suites. 20+ years of software engineering underneath, most of it C++.

SHIPPED CHANNELS

- **Xfinity Stream** (Comcast, 2023 to 2025). Principal Roku Developer; led the team owning the Roku Video Player inside the streaming app for Comcast's video service.
- **Peacock** (NBCUniversal, 2026). Senior Roku Developer on the video player.
- **discovery+** (Warner Bros. Discovery, 2020 to 2022). Senior Software Engineer; screens and the event system.
- **Gospel Stream** (The Church of Jesus Christ of Latter-day Saints, 2021 to 2023). Principal Roku Developer, contracted through NJLIGames; the Church's channel, end to end through certification.

CORE SKILLS

Roku Platform: BrightScript, SceneGraph, Roku certification end to end, channel store operations, Roku registry, deep linking

Video Players: Custom SceneGraph players, HLS and DASH, resume-playback, trick play, captions, live and VOD

Ads & Monetization: Roku Ad Framework, SCTE-35 signal parsing, FreeWheel, interstitials

Analytics & Testing: Youbora, Adobe Edge, Kochava, Rooibos unit testing, test-suite stabilization

Foundation: C/C++ (11 through 20), Lua, Python, Swift, Dart, JavaScript; CMake and CI; 20+ years of shipped software

ROKU EXPERIENCE

Principal Roku Developer | Comcast

February 2023 - July 2025 · Philadelphia, PA (remote)

- Led a team of engineers owning the Roku Video Player inside the Xfinity Stream channel, the streaming app for Comcast's video service, used by millions of subscribers.
- Integrated the Roku Ad Framework into VOD streaming with SCTE-35 signal parsing and a FreeWheel ad-URL system; the Interstitial Library integration I led grew linear ad revenue 300%.
- Authored an RFC 6570 URITemplate library that enabled the HLS to DASH migration.

Senior Roku Developer | NBCUniversal

January 2026 - July 2026 · Remote

- Worked on the video player for Peacock on Roku during the Super Bowl LX and Winter Olympics run.
- Stabilized a crashing unit-test suite built on Rooibos, the open-source BrightScript test framework, by fixing memory issues, significantly increasing test execution speed.
- Integrated Adobe Edge analytics events and simplified the codebase by removing a legacy Promise dependency.

Principal Roku Developer (contract via NJLIGames) | The Church of Jesus Christ of Latter-day Saints

October 2021 - February 2023 · West Jordan, UT (remote)

- Took the Church's streaming channel from empty repository through Roku certification: BrightScript and SceneGraph, live and pre-recorded events, resume-playback via the Roku registry, and Youbora analytics for playback and ads.
- The channel lives on today as Gospel Stream, the Church's official app for its broadcasts, carrying general conference broadcasts the Church says gather millions worldwide in over 70 languages.

Senior Software Engineer | Warner Bros. Discovery

January 2020 - June 2022 · Remote

- Built screens and the event system for the discovery+ Roku app, which launched on Roku on day one in January 2021.
- Implemented VoiceOver accessibility in the discovery+ iOS and tvOS applications in Swift.

Principal Roku Developer (studio work) | NJLIGames Ltd

October 2010 - Present · Mount Sinai, NY

- Roku consulting through my own studio: channel builds, player engineering, ad integration, and channel rescue, delivered with fixed written quotes through store certification.

ADDITIONAL EXPERIENCE

Senior Software Engineer, Neology (2024-2026): multithreaded real-time C++ tolling systems processing millions of daily transactions. **Halo Gameplay Engineer, 343 Industries** and **Game Developer, Visual Concepts (2K)** (2021): gameplay in C++ and Lua on Halo Infinite and NBA 2K22. **Platinum Team Lead, Scale AI** (2023-2024). **Project Lead Developer, NIST** (2022): AR with Unity and HoloLens 2. **Software Systems Engineer IV, Verizon Envrmt** (2017-2019): VR, AR, and 360 video across five platforms. Earlier: Block One, CA Technologies, OpenLink Financial, Powerhead Games (7 shipped Nintendo titles).

EDUCATION & CERTIFICATIONS

Doctor of Science, Computer Science (in progress), University of North Dakota

MBA, Business Administration & Management, Strayer University (2022)

B.S., Computer Science, Stony Brook University · A.S., Computer Science, Suffolk County Community College

Certificates: Machine Learning, Columbia Engineering (2019) · Machine Learning with Python · Agile with Atlassian Jira