

# Nicholas Day

Software Developer | System Architect

#### **PROFESSIONAL EXPERIENCE**

#### GIGXR, Inc — Senior Unity Engineer MAY 2021 - MAY 2025

GIGXR appealed to me both with their noble mission of improving medical training experiences and of their technical challenges in trying to build out a content deployment platform used by other third-party studios to build their own XR applications.

- Took PoC/MVP applications and hammered them into fleshed out and robust software, including architecting and building the foundational systems that would be our SDK
- Got to learn and deploy on the HoloLens among our other supported platforms, and developed the systems that let them all communicate in joint sessions in a shared environment.
- Helped grow the team from a tiny group, from developing onboarding materials, improving developer experiences, interviewing, and ultimately mentoring some very talented folks.
- Almost entirely built up our devops systems from scratch including extensive editor tooling, build and test automations, deployment management, and LOTS of experience fussing with platform stores and working around quirks of Unity, Gradle, and JVMs.
- Built up our CI/CD pipeline and got devs away from building on their own machines. Started with Jenkins and build VM agents, then managed migrations to containerized parallel builds via Github Actions.

## FOXCUBGAMES, Remote Contract — Senior Software Engineer

JAN 2021 - APR 2021

FoxCub was an opportunity to refresh my skills on a web platform. Their games initially used the Cocos engine and then PixiJS, with Typescript in both the client and backend (NodeJS) services.

- Led efforts to capture errors in Asana tasks and dashboards. Integrated Sentry.io with projects and modified custom Perl build pipelines to manage debugging symbols.
- Ported existing game from Facebook to Snapchat as POC, charting procedures and pitfalls for a coming new game offering on the platform.
- Ramped up and began contributing within first week. Left onboarding better than I found it and standardized a template-driven process for each new hire to guide them and track progress. Immediately put into use for additional hires with high marks.
- Tackled fixes and additions by second week along the entire tech stack for the game. By a month I handled several full deployments, including guiding the full team through changes, QA, and playtesting.

#### **THE DANSE, LLC, Memphis TN** — Developer, Partner, CTO FALL 2012 - JAN 2021

Years of software met with a passion for gamedev here with Unity. Built apps and training for companies big and small, specializing in XR experiences. Some fun projects:

#### Virtual Reality Forklift Sim

- Training for a major Memphis freight co. to pair classes with immersive skills testing. Tracked performance, safety, and protocols, and reported progress to instructors.
- Used turnkey wheel/pedals AND Oculus Touch to build controls realistically and affordably. Worked with SMEs to nail the feel of the machinery. Gathered videos, scans, and other resources on-site, including a few days of Forklift operation myself!

#### Kinect-Based Classroom Fitness

- Featured in an article <u>here</u>, gamifying fitness. Tracked up to 4 bodies, evaluating exercise motion, even if moving around or in- and out-of-frame briefly. (because, kids)
- Built simple gesture recognition tooling to quickly assemble new exercises from a library of pose sequences and quantify accuracy of form.
- Included web portal for teachers to build workout schedules and see student progress. Made custom API and backend to facilitate metrics and login in via QR badges.

#### iOS Product Catalog and Reference

• Built mobile apps to assist medical sales for Wright Medical/Stryker. Utilized phonegap/cordova to leverage my web chops. Built serverless backend to sync app media for offline access, and without requiring a new app submission for changes.

#### UNIVERSITY OF MEMPHIS, Memphis TN — Web Specialist II SPRING 2005 - FALL 2012

Ran the eLearning system for entire university and assisted colleagues at other institutions across the state. Lead projects, from gathering requirements to deployment to training users. Worked on prototyping UofM's first mobile app. Built and maintained many tools for use across campus for staff and faculty.

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#### SKILLS

Languages: C#, (Type|Java)Script, Python, PHP, C/C++, shell, whatever fits the bill

Game Development: Unity3D, some Unreal, Cocos/PixiJS/Javascript engines.. will opine about ZZT-OOP if you let me

#### **AR/VR Development:**

Oculus DK1/ CV1/ Go/Rift/Touch/Quest, GearVR, Cardboard, HTC Vive, Leap Motion, Mobile AR (Vuforia, ARKit/ARCore), WinMR, HoloLens, MRTK

#### Back-End:

Constantly learning. AWS and Cloud tech. Data design, DBs, and SQL. Linux, WebServers, PHP, nodeJS

#### Front-End:

JAMstack like npm, webpack, VueJS, Hugo, HTML, CSS, JavaScript, jQuery/other libs, Phonegap/Cordova, Unity3D for desktop and mobile, WebGL, Aframe, ThreeJS

#### **EDUCATION**

B.S. Computer Engineering (Incomplete, to Senior year) University of Memphis Began professional work full-time after junior year

High School, w/ Honors Covington High

#### **HOBBIES & MISCELLANEA**

Outdoorsman | A former scout, I like to camp, hike, kayak, fish, and am enthusiastically terrible at snowboarding.

Gamer | Connected to my drive for challenges and novel systems to explore, I enjoy games of almost all kinds. Dwarf Fortress is my happy place.