Keith Thomas

Chicago, IL **|** keith.w.thomas1@gmail.com

Technical Skills

Languages: C#, Javascript, C++, Typescript

Frameworks/Runtimes: Unity, Three.js, Babylon.js, WebVR, WebGL, .NET, Node.js, WPF, DirectX

Experience

Software Engineer – August 2022 to *Current*
PlayPower, Inc. – (100% Babylon.js /Javascript)

- Building a playground construction application that has lots of drawing elements using Babylon.js and some React.

Lead 3D Software Engineer – April 2022 to July 2022 – *4 Months*
Blocks DAO, Inc. – (100% Three.js /Javascript)

- Built the base movement/render application on top of Three.js (**movement, NFT display, 3D object placement, loading**)
- Utilized **Pathfinding.js** (an NPM package) to allow A* navigation around rooms with character (created grid, fed it through the package, and used calculated paths for movement)
- Created a **model viewer** that allowed for GLB/GLTF import, lighting, reflection maps, etc.
- Built out object types and interaction framework for different functionality. When interacting, **behaviors were things like animating, showing chat bubbles (NPC's), particle systems**, etc.

Freelance 3D Software Engineer – December 2020 to March 2022 – *1 Yr 4 Months*

- Kitestring with a **Unity** mobile game project called "Electro Racers". Did most of the coding for the UI, and some for gameplay.
- Curio with a **Three.js** (**WebGL**) project. Allowed users to view Curio NFT's within a 3D gallery on their website.
- Curio with a second **Three.js** project. Allowed users to view their own NFT's in "Blocks".
- ArtXR with a Three.js (WebGL/WebVR) project for viewing art in a 3D gallery.
- Kitestring with a **Unity** plug-in for their Ozone animation suite.
- Friendly Vengeance with a small **WebAR** project.
- Indigo Slate with a **Babylon.js** (**WebGL**) project. Delivered multiple 3D guided simulations.

Game Editor Developer / Gameplay Engineer – May 2019 to Oct 2020 – *1 Yr 6 Months*
Microsoft / 343 Industries (Apex Systems) – (70% C#, 20% C++, 10% Lua)

- Added multiple new features to the in-house game editor, like a 3D model editor that allows for viewing and changing configurations. **(C#/XAML/WPF)**
- Modified the in-house game engine to expose features for the editor to use. **(C++)**
- Contributed to the Halo campaign, fixing bugs and adding features. **(Lua/C++)**

VR Software Engineer – November 2018 to April 2019 – *6 months*
Microsoft (TEKSystems) – (100% Javascript/WebVR)

- Owned and led architecture on a built-from-the-ground-up WebVR app for the "Immersive Reader", an accessible reading app. **(Typescript/Babylon.js/WebVR/React)**

XR Software Engineer – December 2016 to June 2018 – *1 Yr 8 Months*

zSpace, Inc. – (70% C#, 30% Other)

- Developed a UI framework that addressed XR-specific problems like out-of-view clipping, poor text rendering, and depth issues. **(C#)**
- Created a chrome extension that scans a web-page for images, and replaces those with 3D models from a database. **(WebGL/Three.js)**
- Developed a Unity plug-in which displayed a stereoscopic 3-D preview window while running in the editor. **(C++/DirectX 11.1)**

Software Engineer – June 2015 to August 2016 – *1 Yr 3 Months*

Phenix Real Time Solutions – (90% C++, 10% NodeJS)

- Integrated WebM video streaming, Vorbis audio encoding, and FFmpeg. **(C++)**

Education

Bachelor of Science, Computer Science – May 2015

University of Illinois at Chicago

LinkedIn: *https://www.linkedin.com/in/keith--thomas/*