

Caleb Atwood, Software Developer

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EXPERIENCE **Microsoft, Software Development Engineer 2** 2012 - present

- o Service platform engineer on Xbox Live, the collection of services that comprise Xbox's social graph, catalog, content distribution, and multiplayer.
- o Managed a small team in architecting and implementing Game Modes, a real-time configuration service for describing custom gameplay options for multiplayer titles.
- o Designed and delivered a content and catalog management system for enabling user generated content, currently used in Minecraft's custom content store.
- o Primary dev on Xbox Developer Portal. Catalog, media ingestion, and frontend features.
- o Designed, implemented, and filed a patent on an innovative solution for remotely enabling devkit capabilities on retail Xbox devices. See Patents.
- o Lead an initiative to integrate the Xbox publishing backend with the Windows Dev Center frontend to enable large game binary encryption workflows in the Windows Dev Center

MyFit Inc., Co-Founder and Lead Developer 2011 - 2012

- o Integrated the Microsoft Kinect, cutting edge 3D computer vision algorithms, and a completely novel 3D in-browser experience in order to change the way consumers shop for clothes online.
- o In charge of system architecture design, task lead, back-end and front-end development, 2D and 3D computer vision implementation, and product design.
- o Oversaw team of 3 engineers spanning research, graphics, and platform development.
- o Won Plug and Play Fall EXPO, a Sunnyvale tech accelerator.

PROJECTS **Festival**

- o A React-Native + Redux IOS application built with Firebase for sharing geo-localized conversations and content at music festivals.

BlockCraft Go

- o An AR mobile game based on Pokemon Go, with procedurally generated terrain and structures that resemble those from the game Minecraft. Built with Unity, Google Places, and MapZen.

More Games

- o Sky Vanguard (3D multiplayer cannon shooter), NDMatchMe (javascript college dating game), Marble Deep (3D multiplayer virtual chat space), Tanks (mobile arcade jumper), Rogue Rider (isometric wasteland driver).

Other Projects

- o Ann Arbor Book Barter (open university book exchange), NDTees (college t-shirt marketplace), Facial Iterative Closest Point (biometric recognition), Magic The Recognition (automated card scanner), Norca (drummer of live performance group).

PATENTS **Converting a Retail Gaming Device Into A Development Kit Remotely, Filing with USPTO**

- o Designed a device management service to grant runtime certificates to consoles on boot, facilitates the activation of development capabilities. 2017-6-16

Method and System for Creating a Virtual Avatar for Fitting Clothing, Filed with USPTO

- o 13/631,572 Inventor on a new method for uploading and processing 3 dimensional point cloud scans of the human body to simulate clothing physics on the reconstructed mesh. 2012-9-28

EDUCATION **University of Notre Dame** 2008 - 2012

BS - Electrical Engineering

SKILLS **Backend Services (Master):** C# .NET, SQL, Azure Storage, Document Store, CDN, Entity Framework, REST

Web Development (Proficient): Javascript, ASP.NET, Angular, React, Firebase

Graphics and Processing (Proficient): Unity, OpenGL, OpenCv, Point Cloud Library, C++

INTERESTS Tech [*Augmented Reality, Node, React-Native, Redux, Autonomous Flight, Firestore, Home Automation*], Music [*Drumming, Guitar, Live Performance*]