

# ADRIAN HERBEZ

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## WORK EXPERIENCE

### Senior Software Engineer | Together Labs | January 2022 - present

I work on a variety of things related to our WithMe (Unreal-based metaverse) and MetaJuice (web3 / NFT) divisions.

- Implement gameplay and tooling for Unreal with C++/Blueprints
  - Made improvements to our avatar system (Unreal/C++)
  - Built a system for describing playable board games using JSON, plus web-based tooling to help create the game data
  - Built workflow tools in Maya (Python)
- Prototype web-based 3d features using React and ThreeJS
  - Built a web-based land store for previewing and purchasing virtual land
  - Built web-based tools for novice-friendly creation of virtual clothing and environments
  - Integrated generative AI tools for creating textures and applying them to 3d content

### Senior Interactives Engineer | Brilliant.org | August 2020 - Dec 2021

I worked on the Interactives team, building interactive content to teach STEM subjects, using Elm.

- Implemented interactive content using Elm
- Designed Elm-based APIs for use by course authors
- Implemented features for course authoring infrastructure

### Senior Software Engineer | Ubiquity6 | May 2019 - July 2020

I worked on a team building games and interactive experiences using the Display.land ecosystem, which was built using React and ThreeJS.

- Served as the tech lead on an upcoming game project
- Implemented features for a photogrammetry-based social networking app using React
- Built gameplay features using a ECS based game engine using JS and typescript
- Implemented backend features using node, express, and dynamoDB
- Built art prep tools using Blender and Python, as well as with JS and our custom tech
- Implemented discord integration with a web-based 3d game

### Staff Engineer | Lumos Labs | November 2017 - May 2019

I served as a Staff Engineer on the games team, which is responsible for making cognitive training games.

- Worked on a variety of game features using C# and JS, using Unity and Cocos Creator
- Prototyped numerous game ideas (mainly JS / canvas)
- Developed and open-sourced a lightweight JS-based game engine for rapid prototyping (stirling.js)
- Developed content pipeline tools using Python and JS

### Software Engineer | Google | October 2016 - November 2017

I worked as a web developer on real-time chat applications, including both Hangouts

## ABOUT

I'm a veteran software engineer with over 20 years of experience in game and web development. I'm at my best when working on small teams and making magical things.

## TALKS & PUBLICATIONS

**Creating Custom CAD Tools on the Web with ThreeJS**  
JS Gamedev Summit, 2023

**Make a thing to make a thing: 3d-printable Procedural Content in the Browser**  
Rougelike Celebration, 2020

**Let's get Physical: 3d Printing for Roguelikes**  
Rougelike Celebration, 2019

**Creating Digital Societies in VR**  
SIGGRAPH 2016.  
Panel presentation with Stephanie Riggs, Blair Erickson, and Bill Booth. We presented Sageae, an immersive interface for HMDs and led a discussion on how to create Digital Societies in VR.

**Maya Programming with Python Cookbook**  
PACKT Publishing, July 2016

## SKILLS

ThreeJS, Javascript, Typescript, Node.js, Graphics Programming, Python, C++, C#, Lua,

and Hangouts Chat. I built features and fixed bugs using a variety of javascript and java as well as a range of Google technologies.

- Built features for Google's Slack-like chat app
- Helped to maintain the Hangouts codebase

Unreal, Unity,  
Mentorship, Gameplay  
Engineering, Web  
Development, Fullstack  
Development

## **Founder/President | Jamwix | May 2013 - July 2016**

Cofounder / president of Jamwix, a media startup focused on making high-quality games and experiences based on creativity and playfulness.

- Designed client architecture for CineMagic: Hollywood Madness, a match-three/collectible card game mashup for iOS and Android
- Implemented game systems using Haxe / OpenFL
- Created art pipeline tools in Python and Javascript to prep art assets for CineMagic
- Implemented UI for the first feature-length film released for virtual reality (Banshee Chapter: Oculus Rift Edition, Halloween 2014) using C++ / SDL
- Implemented parody versions of Reddit, Youtube, Imgur, and the Huffington Post as part of the "Reddit3016", a satirical look at what the internet might look like in 2016 (<http://reddit3016.com/>).
- Created a demo (using Unreal) of a virtual reality content aggregation system which was shown as part of the VR Village at SIGGRAPH 2016

MFA Arts,  
Computation,  
Engineering  
University of  
California, Irvine

BFA, Time-based  
and Electronic  
Media  
Carnegie Mellon  
University  
Served as a TA for  
Randy Pausch's  
"Building Virtual Worlds"  
class

## **Lead Gameplay Engineer | KIXEYE | August 2011-May 2013**

I joined KIXEYE just before War Commander launched, and helped to grow it into a top-rated strategy game on Facebook with 100k daily active users.

- Managed a team of 9 client developers
- Provided technical designs for numerous game systems
- Implemented numerous game systems spanning all aspects of the game using AS3 and C++
- Released new features and bug fixes on a two-week release schedule
- Worked with server teams to add a persistent world map to the game post-launch
- Worked with server teams to add synchronous PvP combat to the game post-launch

## **Senior Software Engineer | Cull.tv | January 2011-June 2011**

Worked on both front-end (JS, jQuery) and back-end (PHP, MySQL, Node.js) development for Cull, a social video site. First engineering hire.

- Used the Facebook API to create a channel of videos from videos posted by people in your social network
- Implemented a system to collect feedback from users on new features
- Implemented playback controls and user interface elements using JS / jQuery

## **Senior Software Engineer, Playstation Home | Sony Computer Entertainment, America | September 2008-January 2011**

I was a member of the PlayStation Home Product Development team, which was responsible for creating levels, games, and virtual items for PlayStation Home.

- Designed a wide range of games and interactive experiences
- Implemented a wide range games using Lua and the Home SDK
- Designed a large-scale system to support rapid deployment of gameplay elements
- Designed a system to allow non-engineers to quickly and easily author narrative-based gameplay in Home
- Designed one of the most highly-trafficked levels in Home (the Playground)

## **Software Developer | Millions of Us | January 2008-June 2008**

I served in the engineering department of a small agency specializing in created branded experiences in virtual worlds and new media

- Created interactive experiences in several different platforms, including web-based ARGs and consoles
- Implemented arcade games and interactive objects in Playstation Home using Lua
- Designed and implemented (in Flash) the final puzzle for the Terminator: Dark Discovery ARG (official Honoree, 2009 Webby awards)

### **Web Developer | Linden Lab | November 2006-January 2008**

I worked as a web developer in the Creative Services team.

- Developed numerous internal web applications to make company processes more efficient and easier/more pleasant to use
- Personally responsible for significant components of internal infrastructure

### **Instructor | Academy of Art University | January 2003-May 2007, February 2010-December 2011, January-May 2016**

I've worked at AAU as an instructor in the 3d animation, New Media, and Game Programming departments, teaching both undergrads and graduate students.

- Taught classes in game programming with C++
- Taught classes on web technologies (JS, MySQL, PHP, HTML, CSS)
- Taught classes on various aspects of Maya and MEL scripting
- Created materials for online classes
- Served as an advisor for master's degree students

### **Lead Animator | PTEI - Regenerative Medicine Partnership in Education | May 2001 - Jan 2002**

Produced content for use in an planetarium-based project to teach junior and senior high school students about tissue engineering.

- Created a range of biomedical animations using Maya
- Wrote MEL scripts to support the team
- Coordinated the efforts of undergrad animators

### **Virtual World Developer | Eldervision | May 1999-January 2001**

Created objects, environments, and animations both pre-rendered and real-time, for use in an 3d internet application for the elderly.

- Built out real-time environments in ActiveWorlds
- Created pre-rendered animations using 3d Studio Max