

Alec Pierce

Senior Software Engineer with 7+ years professional experience. Highly skilled in C# and 3D XR technologies. Experienced creating software for medical, industrial, and military clients. 4+ years experience in human-computer interaction based research and design.

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WORK EXPERIENCE

Magnit @ Meta, Redmond, WA — Research Engineer

September 2021 - September 2023

- Created data transforms in C++ and Python, for a CTRL-R environment, focusing on 3D manipulation and calculation of wrist-based inputs.
- Developed UI-based research applications involving 3D mapping and manipulation of wrist-device, eye-gaze, and computer vision data.
- Contributed to an internal SDK for quick iteration on future research work.

ForgeFX, San Francisco, CA — Unity 3D Developer

April 2021 - September 2021

- Worked on UX elements for use within a Hololens application.
- Created and maintained screen functionality, for a virtual device, in a 3D AR military training simulation built within Unity3D.
- Worked with co-workers collaboratively across multiple time-zones.

Karuna Labs, San Francisco, CA — Software Engineer

August 2018 - October 2020

- Created complex interaction flows for physical therapy within the Unity3D Engine.
- Helped rearchitect and build the medical VR platform from the ground up, focusing on precise 3D full-body IK tracking and measurements.
- Developed and implemented backend solutions between our application and web servers using C# and Python.
- Tested and researched new VR hardware and software technologies for use in a clinical setting.

Vixonix Studios, Madison, WI — Software Lead / Founder

April 2017 - April 2018

- Developed the VR UX system, world design, and multiple 3D

TECHNICAL SKILLS

LANGUAGES

C#, Python, C++, Rust, Java, HTML, CSS, Javascript, Typescript, C, JSON, YAML

PROGRAMMING TOOLS

Git, Mercurial, BUCK, CTRL-R, Unity, Unreal, JetBrains Suite, VS Code, VS Community, Blender, Eclipse

COMMUNICATION TOOLS

Atlassian Suite, Google Suite, Office 365, Slack, Adobe Suite, Workplace, Microsoft Teams

BACKEND MANAGEMENT

MySQL, Microsoft SQL Server, NodeJS, Express, Postgresql

CLOUD TECHNOLOGIES

AWS, Docker, Kubernetes

FRAMEWORKS & API

MRTK, VRTK, Photon, StrangeIOC, Gatsby, Oculus SDK, OpenXR

SOFT SKILLS

Flexibility, Confidence, Problem Solving, Communication, Research

interaction systems for the game.

- Collaboratively designed a custom multiplayer solution using UNet and an SQL database.
- Contributed to the training of employees in Unity, Blender, Git, and Github.

INTERESTS

Virtual Reality, Augmented Reality, Telehealth, Automation, Physics

EDUCATION

University of Wisconsin - Madison, Madison WI — Bachelor of Computer Sciences

September 2012 - May 2018

PERSONAL PROJECTS

Unity Health Tech — August 2019 - Present

- Research and utilize the use of Bluetooth hardware with Unity based applications.
- Grab users heart rate data through various devices to drive the UX and logic within a Unity Application.

PepperCastXR— December 2021 - Present

- Utilize Unity and multiple VR platforms to bring VR entertainers to IRL venues through hologram projection and LCD screen displays.
- Create custom 3D models, avatars, and textures for performers within Unity-based VR spaces.

Brain VR— January 2023 - March 2023

- Meta Quest based application that allows the loading of common MRI and CT scan data for viewing within VR and AR environments.