Tri Chu

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Experience

Niantic Spatial (Formerly Niantic Labs)

Palo Alto, CA

Senior Software Engineer | TypeScript, C++, React, WebXR, Game

March 2023 - Present

Engines, Flecs, Wasm

- Built Niantic Studio, a web-based AR authoring tool featuring a dedicated game engine, XR engine, and simulation support within a drag-and-drop UI. Delivered a best-in-class tool with a robust feature set in record time, reducing users' time-to-project-publish by 34% and increasing Monthly Active Developers by 29.6%. Won "Best Creator & Authoring Tool" at AWE USA 2025.
- Built Niantic Visual Positioning System (VPS) for the Web, enabling high-fidelity real-world occlusion and meshing through a fast, stable hybrid tracking approach that delivers unmatched authoring capabilities. Also supported the launch of the Niantic Geospatial Browser (GSB), empowering users to author and manage location-based content remotely using Niantic's mapping data.
- Developed an innovative Simulator within the 8th Wall Cloud Editor, enabling developers to preview code changes in seconds (instead of minutes) without requiring a mobile device. Designed automated testing sequences to validate diverse scenarios, significantly improving developer velocity and productivity across the platform.

Niantic Labs Palo Alto, CA

Software Engineer | TypeScript, C++, React, WebXR, Wasm, Three.js

April 2022 - February 2023

- Expanded our Metaversal Deployment feature to enable running our product on new platforms like the Apple Vision Pro, Meta Quest 2. won "Best Developer Tool" at AWE USA 2024
- Designed, developed, and launched a new documentation system, providing a centralized knowledge source for agentic training and driving significant website engagement. Achieved 50K monthly page views and improved resource accessibility for internal and external users.
- Expanded website localization to support multiple regions and languages, enhancing global accessibility and driving deeper market penetration across international audiences.

8th Wall (Acquired by Niantic)

Palo Alto, CA

Software Engineer | TypeScript, C++, React, WebXR

November 2020 - March 2022

- Designed and implemented an integrated blog platform within the company website, driving 7of total logged-out traffic (≈100K monthly impressions) through improved SEO, performance optimization, and user experience enhancements.
- Expanded our WebXR capability, culminate in project Metaversal Deployment which enable development of our WebXR product to headmount devices and other platforms. This set the foundation for 8th Wall to win the Best Developer Tool at AWE 2024.
- Built a public profile system for our customer workspaces. Allow our customers to have more venues to advertise their works, driving more engagement to our website.
- Improved our Cloud Editor by adding new features like code search and debug mode. Surfacing more signals to developers working on our platform
- Contributed to the strategic growth and successful acquisition of 8th Wall by Niantic by utilizing cuttingedge technologies and optimizing cross-functional workflows, driving business value and operational efficiency

Harvest Exchange Houston, TX

Software Engineer

June 2016 - October 2020

- Rewrote and updated our web application from Ruby on Rail to React with Python stack, which increased our SEO score and conversion rate by 20%
- Led the development of a new email processing system that speed up our daily newsletter processing by 10x times while keeping up with our growing subscription base.
- Redesigned and upgraded website to use responsive web interface with React

Baylor College of Medicine - Human Genome Sequencing Center (HGSC)

Houston, TX March 2012 - May 2016

Software Engineer

- Wrote and maintained a suite of responsive reporting software for biometric data that monitor have millions of samples
- Rewrote an old GWT web application using AngularJS and Java Restful Web Service which Improved query speed for HGSC reports by more than 10 times

Skills

- Programming Languages: Typescript, Javascript, Python, C/C++
- Tools: React.js, Three.js, Node.js, WebXR, Flecs, SQL, Ruby on Rails, JQuery, Django, Bottle
- Human Languages: English (fluent), Vietnamese (native)

Education

University of Houston

Houston, TX August 2008 - May 2011

Bachelor of Science in Computer Science ACM International Collegiate Programming Contest (ICPC) Team, Dean's List