ARYEHMISCHEL@GMAIL.COM • ARYEHMISCHEL.COM

ARYEH MISCHEL

SKILLS

Languages: C#, JavaScript, TypeScript, jQuery, HTML/CSS, SQL

Unity Game Dev: Unity 3D, URP, Popular VR Libraries & Frameworks (XR Interaction Toolkit, Oculus Integration, SteamVR, autohands, hurricane, and more), Unity Particle Systems, ShaderGraph, 3D Lighting, Mecanim Animation Sytem, 3D math, Unity Profiler, playerPrefs, ProBuilder

WebXR: ThreeJS, A-Frame, WebXR, WebGL/GLSL, basis universal textures, draco compression

General Web dev: Webflow, nodeJS, Express, webpack

Tools and Technologies: Git, Blender, Figma, Jira, Unreal Meta Humans, ZBrush, blender add-ons (facebuilder, faceit, mocap, auto rig pro)

EMPLOYMENT HISTORY

UNITY 3D/VR DEVELOPER
Beam Imagination

2021 - 2022

Applied knowledge of proprioception to design and implement an immersive weapon interaction system for a VR FPS game. Used Unity's Springs, Hinges, and Physics to create realistic movement of gun parts (slide, hammer, revolver drum, safety,etc). Developed hand interaction systems tailored to the physical limitations of Oculus Quest controllers, ensuring smooth and immersive gun handling. Created and modeled 3D assets for weapon parts, contributing to overall in-game realism.

UNITY 3D/VR DEVELOPER
Hooldus Connect

Sep 2020 - Nov 2021

Developed a VR game similar to "Beat Saber" for a startup aiming to use in-game player metrics to help aid in the diagnosing ADHD. This MVP helped secure the company's initial funding. I was responsible for the entire project lifecycle, including technical architecture, UI design, animations, VR interactions, data capture, and final implementation. The core gameplay mechanics were built using the XR Interaction Toolkit and the "EZ Slice" component. I also developed a scalable data pipeline utilizing PlayerPrefs, custom .NET scripts, and Firebase to support rapid testing and development.

DATABASE DEVELOPER
Diligent Systems

Jun 2020 - Jan 2021

Handled various independent tasks such as database design, writing and optimizing SQL queries, managing MS SQL databases, and developing stored procedures. Gained expertise in backup and restore processes while learning advanced database management and performance optimization techniques.

PROJECTS

2024

PORTFOLIO WEBSITE

2024

Created a responsive portfolio website using Figma and Webflow for design. Added 2D animations with CSS and 3D interactive content with Three.js. Built the backend using Node.js and Express, optimized performance with tree-shaking and Webpack, and ensured fast content delivery through AWS CloudFront.

360-VIEWER

2024

Developed a user-friendly website for 360-image viewing using A-Frame, HTML, CSS, JavaScript, and jQuery. Added support for multi-image uploads with Dropzone.js and implemented Web Workers for multi-threaded image processing. Improved performance for CPU-limited devices (VR & Mobile) by converting images to bitmaps in Web Workers, enabling efficient GPU memory uploads.

XR-VIEWER

2024-present

Currently developing a full-stack WebXR application for immersive content viewing and sharing. The frontend is built with HTML, CSS, JavaScript, and Three.js, while the backend uses Node.js, Express, and AWS for hosting. The application integrates Passport for OAuth, S3 and CloudFront for storage and content delivery, and sessions for user data management. A containerized microservice runs on ECS Fargate, utilizing KTX command line tools to create, encode, and compress GPU textures.