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aws partner network

Advanced
Consulting
Partner

AWS embracing metaverse

digicomp



aws

USER GROUP
Bern

Luca Silvestri
Senior Cloud Architect

Dino Bektas
Senior Cloud Architect

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What are we going to talk about?

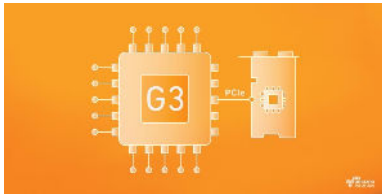


- How devs can develop and deploy Metaverse experiences on AWS.
- Some tech stuff.
- It's not that easy!
- Educational platform based on metaverse.
- Peeking at the crystal ball.

AWS is all about choice!



IaaS



PaaS



SaaS



AWS Amplify meets (Web)XR



What is WebXR?



- <https://immersiveweb.dev/>
- Specs => <https://immersive-web.github.io/>

Goals:

- Enable XR applications on the web by allowing pages to do the following:
 - Detect if XR capabilities are available.
 - Query the XR device capabilities.
 - Poll the XR device and associated input device state.
 - Display imagery on the XR device at the appropriate frame rate

Non-goals:

- Define how a Virtual Reality or Augmented Reality browser would work.
- Expose every feature of every piece of VR/AR hardware.
- Build "[The Metaverse.](#)"

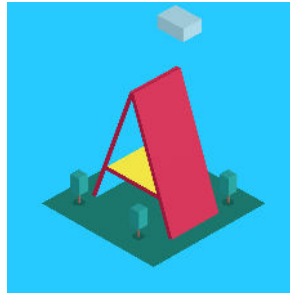
WebXR, so what?



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Frameworks & engines integration



three.js r139



Common traits of a webXR application

- Static webapp
- Multi-device
- Multi-browser (Firefox, Chrome, Safari...)
- Component-based (e.g. A-Frame)

Use case: Mozilla A-Blast

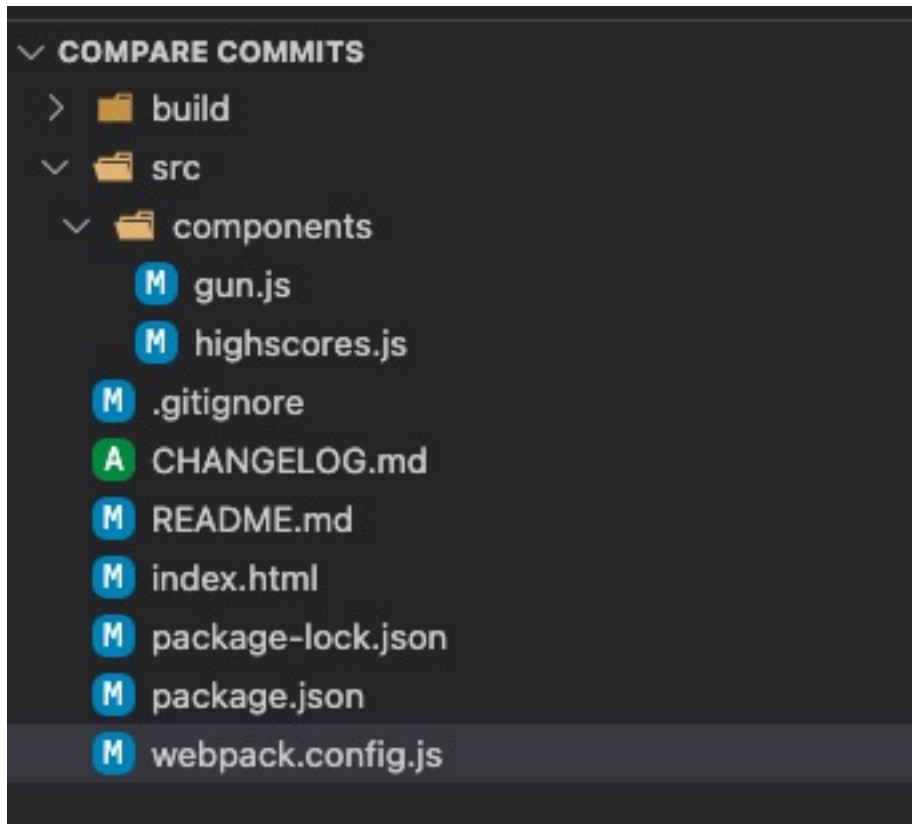


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<https://github.com/silvestriluca/a-blast>



Some commits after...



But there are more issues:

- Deprecated libraries/modules
- Not standard models (GLTF 2.0 is the standard)
- Exporters didn't worked (broken models)
- Source models in Blender are corrupted

Amplify? It's your friend!



- You can use Amplify Hosting for deploy
- CLI or Web dashboard
- Global CDN
- Serving assets out of the box (bye bye S3 + Cloudfront + Cache invalidation management)
- Builtin CI/CD (Codebuild .yaml syntax)
- Pluggable with other Amplify-managed services (e.g. Cognito)



Demo

Metaverse meeting AWS

A dramatic photograph of a space shuttle launching at night. The shuttle is ascending vertically, leaving a massive, bright white plume of smoke and fire that fills the lower half of the frame. The launch pad structure is visible at the base of the shuttle. In the background, a tall, slender water tower stands on the right side. The sky is dark, and the overall scene is illuminated by the intense light of the rocket's engines.



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A white ceramic cup with a blue and green floral pattern sits on a matching saucer. A teabag is in the cup, and a spoon lies on the saucer. The background is a blurred wooden chair. A semi-transparent grey arrow-shaped banner is overlaid on the right side of the image.

AWS Cloud Quest - Online Role-Playing Game *Demo

Amazon Sumerian

- VR Framework by Amazon
- Provides web-based editor to construct and animate 3D scenes without the need for specialized programming
- Integrated with other AWS services such as AWS Amplify (JS Library => embed VR/AR into web-apps), API GW, Amazon CloudFront, AWS Translate etc...
- Support for popular hardware devices such as Oculus Quest/Go/Rift, HTC Vive/Vive Pro, Samsung Gear VR...
- Publishing content either public with CloudFront or private with Amplify
- Out-of-the-box bundle of Amazon Sumerian Hosts (3D) => automated delivery of single-language content to multi-language audience (via AWS Translate)



VR games running in the cloud.. Possible?



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Case: I wanna be able to play PC-only supported Game that can't run directly on Oculus Quest and I'm too poor to afford powerful PC at home. Have you actually seen prices of graphic cards recently?



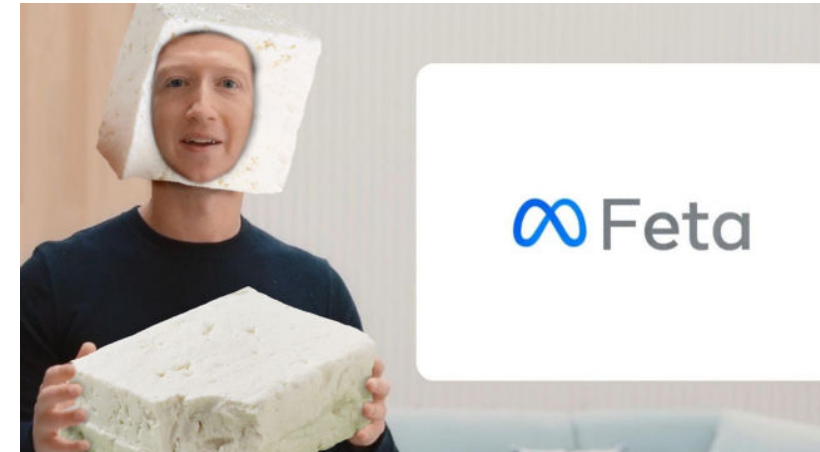
Nvidia CloudXR => <https://developer.nvidia.com/nvidia-cloudxr-sdk>


Nvidia CloudXR AWS AMI Offering => <https://aws.amazon.com/marketplace/pp/prodview-galujeez5ljra>

AWS EC2 G4 types => <https://aws.amazon.com/ec2/instance-types/g4/> (g4dn.xlarge \$0.7 per hour)

What lies ahead?

- Meta already charging ahead with the name change from Facebook
- Apple to release an AR/VR headset later this year or Q1 2023
- Google Glass comeback?
- Additional improvements to massive multiplayer immersive experiences seen in Fortnite (Epic Games)
- Microsoft in talks to buy Activision Blizzard (WoW, CoD)



A person stands on a snowy mountain peak, arms outstretched, overlooking a vast landscape. In the foreground, the mountain's ridge is covered in patches of snow and dark vegetation. Beyond the ridge, a deep blue lake stretches across the middle ground, flanked by steep, rocky slopes. In the far distance, a range of jagged, snow-capped mountains rises against a pale, hazy sky. A semi-transparent dark grey rectangle is overlaid on the middle of the image, containing the text "Thank you! Questions?".

Thank you! Questions?



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