equinor

Using Neural Radiance Fields to Create Digital Twins of Environments and Objects

Proof of Concept

Jørgen Jore and Erlend Veire

equinor

Exploring the Industrial Metaverse: NeRF's Role in Transforming Offshore

Proof of Concept

Jørgen Jore and Erlend Veire

About Us

Emerging IT Sandbox, Stavanger, Equinor

Jørgen Jore

2 year, Computer Science + Medicine

Erlend Veire

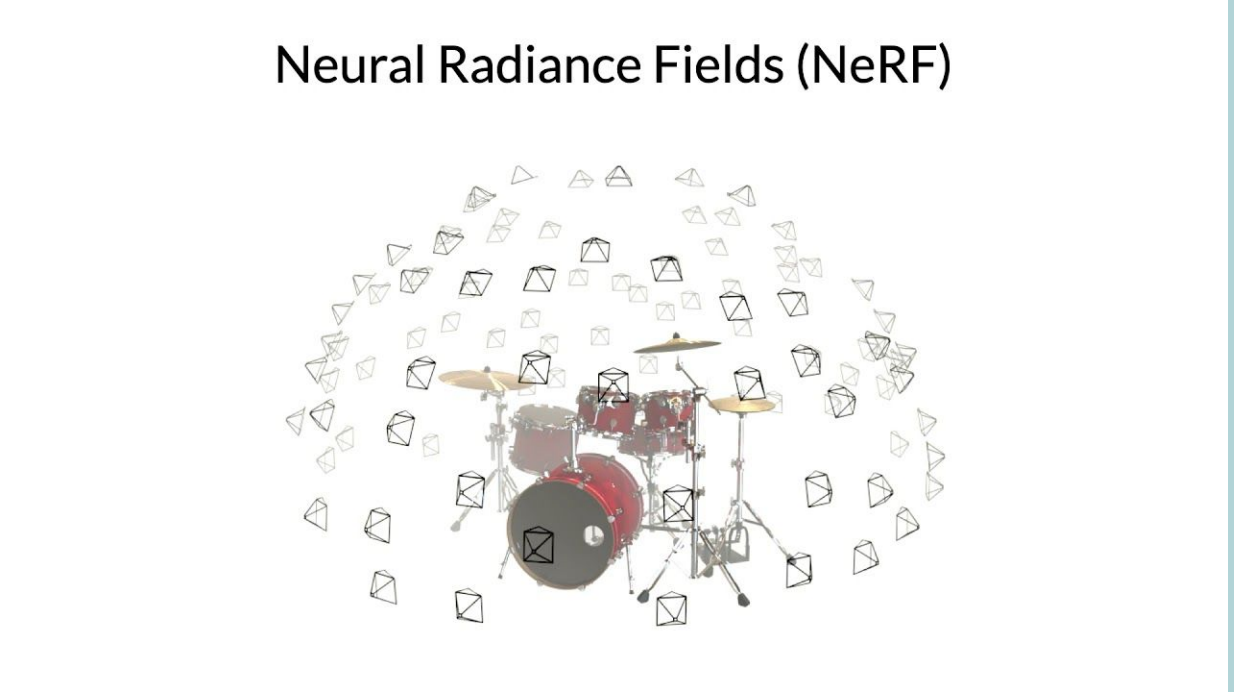
2 year, Computer Science + Economics

Industrial Metaverse: Giving people super powers

Using Neural Radiance Fields (NeRF)

Neural Radiance Fields (NeRF)

Method for creating detailed 3D models from 2D images using machine learning techniques



Problem

How can travel offshore without actually travelling there?

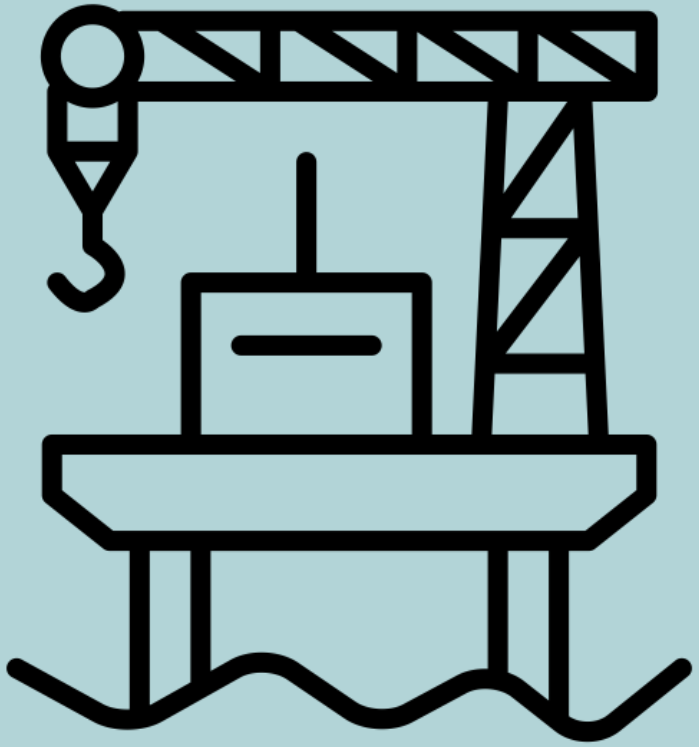
Public

Problem

[1] Required 1 week of training

[2] Time consuming process

[3] Expensive to send trainees to site



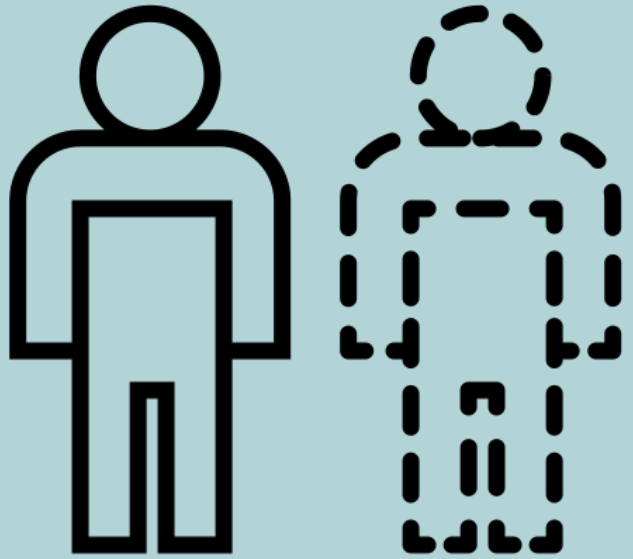
Public

Creating a Digital Twin

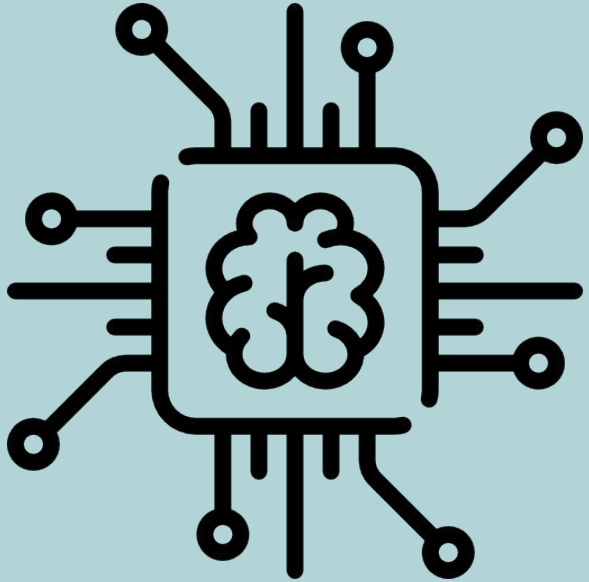
[1] Neural Radiance Fields

[2] Unreal Engine

[3] Plugins



Demo



Public

Other Applications

[1] Training and Simulation

[2] Industrial Equipment Inspection

[3] Video Production

Problems: Neural Radiance Fields (NeRF)

[1] **Nascent technology**

[2] **Inconsistent quality**

[3] **Time consuming to produce big projects**

[4] **Hardware intensive**

Public

Questions