

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

Proof of Concept

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

Proof of Concept

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About Us

Emerging IT Sandbox, Stavanger, Equinor



Jørgen Jore

2 year, Computer Science + Medicine



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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

Neural Radiance Fields (NeRF)

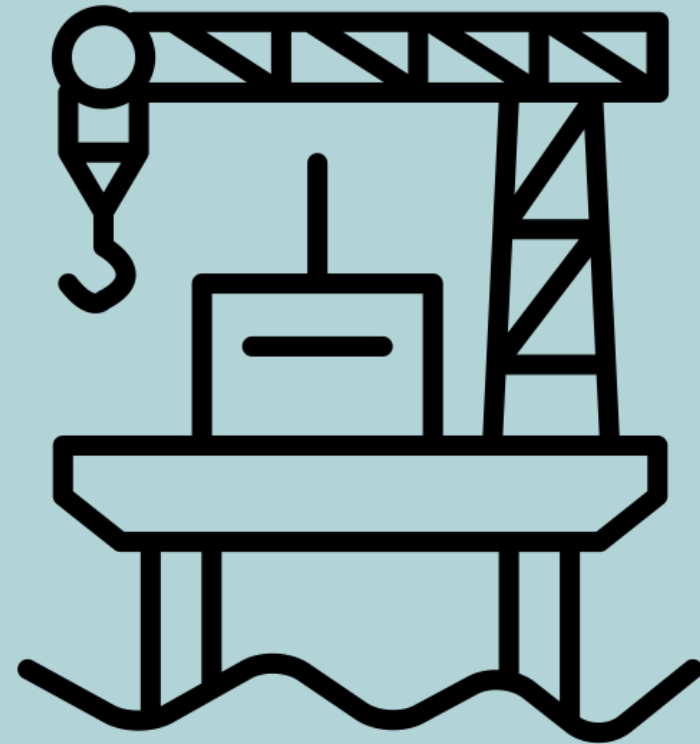


How can travel offshore without actually travelling there?



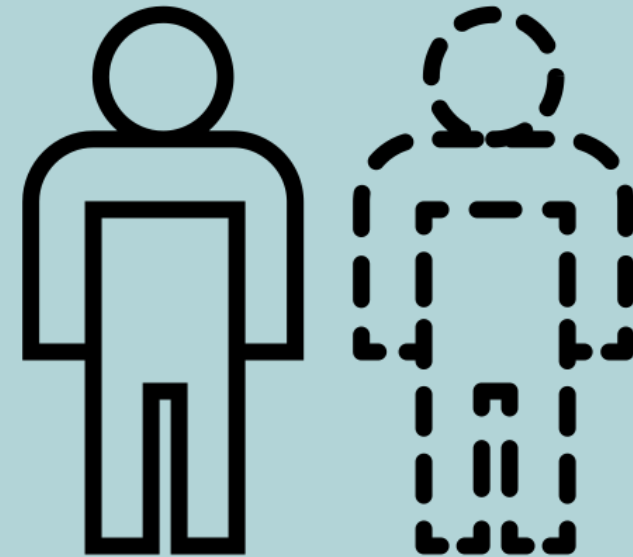
Problem

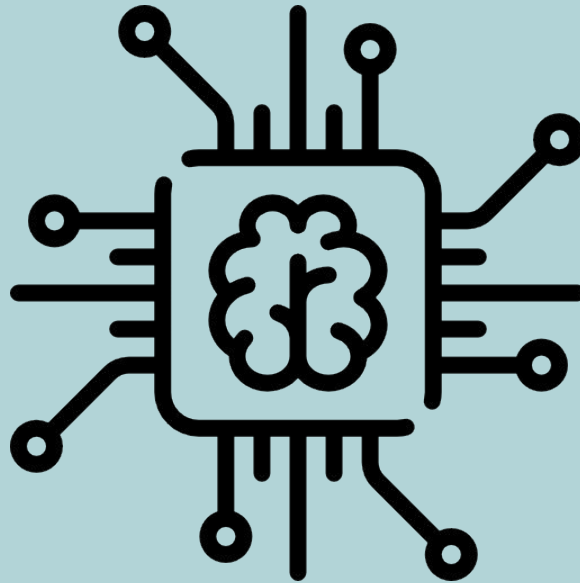
- ¹ Required 1 week of training**
- ² Time consuming process**
- ³ Expensive to send trainees to site**



Creating a Digital Twin

- ¹ Neural Radiance Fields**
- ² Unreal Engine**
- ³ Plugins**



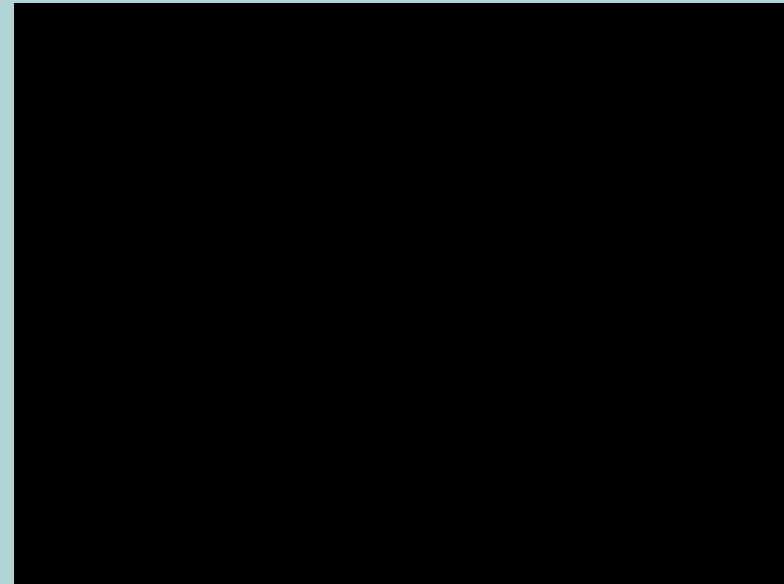


Other Applications

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**



Questions