

Master's Thesis

## Digital twin of a position-force teleoperation framework in Nvidia Omniverse

NVIDIA Omniverse is a platform that enables researchers to create custom 3D pipelines and simulate large virtual environments in a fast and convenient manner. It can render the environments very accurately and immersively with the help of GPU acceleration. In this work, we aim to create a digital twin of a teleoperation framework in Omniverse, in which we can use the haptic input device to control the remote robot arm.

## **Prerequisites**

- Good Programming Skills (Python, C++)
- Knowledge about Ubuntu/Linux/ROS
- Motivation to learn and conduct research

## Contact

dong.yang@tum.de

Please attach your CV and transcript

## **Advisors**

Xiao Xu, Dong Yang