Enhancing NeRF-based reconstruction of automotive scenes

Georg Hess | Chalmers University of Technology Adam Lilja | Chalmers University of Technology Carl Lindström | Chalmers University of Technology William Ljungbergh | Linköping University Farhan Rasheed | Linköping University Adam Tonderski | Lund University

Industrial supervisor: Christoffer Petersson | Zenseact Academic supervisor: Lennart Svensson | Chalmers University of Technology

Summary

In this project, we have developed a novel view synthesis method specifically tailored for automotive data. We improve performance compared to current methods by modeling important characteristics for both cameras and lidars - including rolling shutter, beam divergence and ray dropping - as well as decreasing training times. We verify its performance on Zenseact Open Dataset (ZOD), achieving state-of-the-art performance for all performance metrics.

WARA connection

This project is not connected to any WARA.