

Moritz Reuss

PH.D. STUDENT IN COMPUTER SCIENCE

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Education

Ph.D. in Computer Science about Robot Learning

KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT)

- advised by Prof. Rudolf Lioutikov
- Research on skill-based imitation learning for robot agents

Karlsruhe, Germany

01/2022 - PRESENT

Master of Science in Mechanical Engineering

KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT), FINAL GRADE: 1.2

- Master Thesis about Hybrid Models for Inverse Dynamics of Robot Manipulators (Grade: 1.0)
- Specialization in autonomous systems and robotics

Karlsruhe, Germany

04/2019 - 10/2021

Exchange Semester

CHALMERS UNIVERSITY OF TECHNOLOGY

- Courses in Machine Learning, Robotics and Control

Gothenburg, Sweden

08/2020 - 02/2021

Bachelor of Science in Mechanical Engineering

KARLSRUHE INSTITUTE OF TECHNOLOGY, FINAL GRADE: 2.0

- Focus on mechatronic systems and control

Karlsruhe, Germany

10/2015 - 03/2019

German A-levels

GERMAN SCHOOL OF BARCELONA, FINAL GRADE: 1.2

- Graduated as top of the year

Barcelona, Spain

12/2012 - 06/2015

Experience

Bosch Corporate Research

EXTERNAL MASTER THESIS

- Research in hybrid model for inverse dynamics prediction of a 7 Degree-of-Freedom robot arm

Renningen, Germany

04/2021 - 09/2021

Research Assistant in Machine Learning

RESEARCH CENTER FOR INFORMATION TECHNOLOGY (FZI)

- Research in using energy-consumption models using recurrent neural network architectures for electric vehicles
- Development a Python framework for data extraction and preprocessing of road information

Karlsruhe, Germany

05/2019 - 02/2021

Working Student in Vehicle Simulations

IPG-AUTOMOTIVE GMBH

- Evaluation and Implementation of hybrid car architectures in driving simulators

Karlsruhe, Germany

10/2016 - 03/2018 and 03/2019 - 11/2019

Engineering Intern and subsequent Bachelor Thesis

AUDI AG

- Research on humidity prediction models for control of dynamics fuel cell systems

Neckarsulm, Germany

April. 2018 - Feb. 2019

Publications

Goal-conditioned Imitation Learning with Score-based Diffusion Policies

MORITZ REUSS, MAXIMILIAN LI, XIAOGANG JIA, RUDOLF LIOUTIKOV

Robotics, Science and Systems (RSS)

2023

End-to-End Learning of Hybrid Inverse Dynamics Models for Precise and Compliant Motion Tracking

MORITZ REUSS, NIELS VAN DUJIKEREN, ROBERT KRUG, PHILIPP BECKER, VAISAKH SHAJ, GERHARD NEUMANN

Robotics, Science and Systems (RSS)

2022