

Andrii Zadaianchuk

zadaianchuk.github.io
andrii.zadaianchuk@tuebingen.mpg.de
+41 767465868

Education

ETH Zürich, Switzerland Ph.D. Student, Max Planck ETH Center for Learning Systems	04.2019 - 10.2022
Universität Tübingen, Germany M.Sc., Graduate Training Centre of Neural Information Processing GPA: 1.1/1.0	10.2016 - 09.2018
Moscow Institute of Physics and Technology, Russia B.Sc., Applied Mathematics and Physics GPA: 4.89/5.0	09.2012 - 08.2016

Experience

Self-supervised Visual RL with Object-centric Representations Developed autonomous RL agent that learns SotA policies in visual multi-object rearrangement and pushing tasks without a reward signal by incorporating object-centric representations and attention based goal-conditioned policies	06.2020 - 10.2020
Independently Controllable Dynamic Components Developed an active representation learning algorithm that improves representation disentanglement by 200% by learning independently controllable components in dynamic environments	11.2019 - 05.2020
Transferable Dynamics Learning Compared the out-of-distribution generalization and transfer properties of 4 SotA dynamics learning models on the real-world robotics dataset	04.2019 - 07.2019
Online Step Size Adaptation for Stochastic Optimization Developed quadratic step-size adaptation method with 10 times less sensitive hyperparameters by using quadratic approximation and proximal point methods	01.2018 - 08.2018

Awards and Leadership

Awarded DAAD scholarship (25/600 applicants) due to clear objectives and academic achievements	08.2016 - 09.2018
Obtained Academic scholarship for excellence studying and scientific accomplishment 7 terms by being in top 8% student during each term	01.2013 - 07.2016
Awarded Gold medal in Mathematics and Physics Regional Olympiads	04.2011 - 04.2012
Tutored Deep Learning course (with up to 400 students) ETH Zürich, Switzerland	10.2020 - 01.2021
Tutored Introduction in Machine Learning course (with up to 1300 students) ETH Zürich, Switzerland	01.2021 - 05.2021

Publications

Self-supervised Reinforcement Learning with Independently Controllable Subgoals

Conference on Robot Learning, 2021

Andrii Zadaianchuk, Georg Martius, Fanny Yang

Self-supervised Visual Reinforcement Learning with Object-centric Representations

International Conference on Learning Representations, 2021 (spotlight presentation)

Andrii Zadaianchuk, Maximilian Seitzer, Georg Martius

Unsupervised Learning of Independently Controllable Dynamic Components

ICML Object-Oriented Learning (OOL): Perception, Representation, and Reasoning Workshop, 2020

Andrii Zadaianchuk, Georg Martius

A New Robotic Dataset for Transferable Dynamics Learning

International Conference on Robotics and Automation, 2020

Diego Alejandro Agudelo-España, **Andrii Zadaianchuk**, Philippe Wenk, Aditya Garg, Joel Akpo, Felix Grimminger, Julian Viereck, Maximilien Naveau, Ludovic Righetti, Georg Martius, Andreas Krause, Bernhard Schölkopf, Stefan Bauer, Manuel Wüthrich

Selection of optimal physical activity classification model using measurements of accelerometer

Information Technologies, 2016, 22(4) : 313-328.

Andrii Zadaianchuk, Mariia Popova, Vadim Strijov