

Jin Cheng

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EDUCATION

Doctoral student in Computer Science, ETH Zürich, Switzerland	since 10/2023
Advisor: Prof. Dr. Stelian Coros (ETH Zürich), Prof. Dr. Guanya Shi (Carnegie Mellon University)	
M.Sc. in Mechanical Engineering, ETH Zürich, Switzerland	09/2020 – 07/2023
B.E. in Vehicle Engineering, Tsinghua University, China	09/2016 – 07/2020

RESEARCH EXPERIENCE

Scientific Assistant, ETH Zürich	since 10/2023
Computational Robotics Lab (CRL), supervised by Prof. Dr. Stelian Coros	
Research Intern, Max Planck Institute for Intelligent Systems	04/2023 - 09/2023
Autonomous Learning Group, supervised by Prof. Dr. Georg Martius	
Research Assistant, ETH Zürich	11/2022 - 03/2023
Computational Robotics Lab (CRL), supervised by Prof. Dr. Stelian Coros	
Semester and Master Thesis, ETH Zürich	03/2022 - 11/2022
Robotic Systems Lab (RSL), supervised by Prof. Dr. Marco Hutter	
Research Assistant and Bachelor Thesis, Tsinghua University	09/2019 - 05/2020
State Key Laboratory of Intelligent Green Vehicle and Mobility, supervised by Prof. Dr. Qing Zhou	

PUBLICATIONS

Whole-body Inverse Dynamics MPC for Legged Loco-manipulation (RA-L)	
Lukas Molnar, <u>Jin Cheng</u> , Gabriele Fadini, Dongho Kang, Fatemeh Zargarbashi, Stelian Coros	11/2025
RAMBO: RL-Augmented Model-Based Whole-Body Control for Loco-Manipulation (RA-L)	
<u>Jin Cheng</u> , Dongho Kang, Gabriele Fadini, Guanya Shi, Stelian Coros	07/2025
Spatio-Temporal Motion Retargeting for Quadruped Robots (T-RO)	
Taerim Yoon, Dongho Kang, Seungmin Kim, <u>Jin Cheng</u> , Minsung Ahn, Stelian Coros, Sungjoon Choi	07/2025
SATA: Safe and Adaptive Torque-Based Locomotion Policies Inspired by Animal Learning (RSS 2025)	
Peizhuo Li, Hongyi Li, Ge Sun, <u>Jin Cheng</u> , Xinrong Yang, Guillaume Bellegarda, Milad Shafiee, Yuhong Cao, Auke Ijspeert, Guillaume Sartoretti	02/2025
DARE: Diffusion Policy for Autonomous Robot Exploration (ICRA 2025)	
Yuhong Cao, Jeric Lew, Jingsong Liang, <u>Jin Cheng</u> , Guillaume Sartoretti	02/2025
RobotKeyframing: Learning Locomotion with High-Level Objectives via Mixture of Dense and Sparse Rewards (CoRL 2024)	
Fatemeh Zargarbashi, <u>Jin Cheng</u> , Dongho Kang, Robert Sumner, and Stelian Coros	09/2024
Offline Diversity Maximization Under Imitation Constraints (RLC 2024)	
Marin Vlastelica, <u>Jin Cheng</u> , Georg Martius, Pavel Kolev	05/2024
Learning Diverse Skills for Local Navigation under Multi-constraint Optimality (ICRA 2024)	
<u>Jin Cheng</u> , Marin Vlastelica, Pavel Kolev, Chenhao Li, Georg Martius	02/2024
RL + Model-based Control:	
Using On-demand Optimal Control to Learn Versatile Legged Locomotion (RA-L)	
Dongho Kang, <u>Jin Cheng</u> , Miguel Zamora, Fatemeh Zargarbashi, Stelian Coros	09/2023
Haptic Teleoperation of High-dimensional Robotic Systems Using a Feedback MPC Framework (IROS 2022)	
<u>Jin Cheng</u> , Firas Abi-Farraj, Farbod Farshidian, Marco Hutter	10/2022

PREPRINTS

APEX: Action Priors Enable Efficient Exploration for Robust Motion Tracking on Legged Robots (Under Review)		
<i>Shivam Sood, Laukik Nakhwa, Ge Sun, Yuhong Cao, Jin Cheng, Fatemeh Zargarbashi, Taerim Yoon, Sungjoon Choi, Stelian Coros, Guillaume Sartoretti</i>		11/2025
TARC: Time-Adaptive Robotic Control (Under Review)		
<i>Arnav Sukhija, Lenart Treven, Jin Cheng, Florian Dörfler, Stelian Coros, Andreas Krause</i>		09/2025
Learning Steerable Imitation Controllers from Unstructured Animal Motions (Under Review)		
<i>Dongho Kang, Jin Cheng, Fatemeh Zargarbashi, Taerim Yoon, Sungjoon Choi, Stelian Coros</i>		07/2025
CAIMAN: Causal Action Influence Detection for Sample-efficient Loco-manipulation (Under Review)		
<i>Yuanchen Yuan, Jin Cheng, Núria Armengol Urpí, Stelian Coros</i>		07/2025
Learning More With Less: Sample Efficient Dynamics Learning and Model-Based RL for Loco-Manipulation		
<i>Benjamin Hoffman, Jin Cheng, Chenhao Li, Stelian Coros</i>		02/2025
MetaLoco: Universal Quadrupedal Locomotion with Meta-Reinforcement Learning and Motion Imitation		
<i>Fatemeh Zargarbashi, Fabrizio Di Giuro, Jin Cheng, Dongho Kang, Bhavya Sukhija, Stelian Coros</i>		09/2024

INVITED TALKS

Intelligent Motion Lab (IMO) @ Seoul National University (SNU)	10/2025
Frontier AI & Robotics (FAR) @ Amazon	05/2025
Robotics and AI Institute (RAI) @ Zurich	04/2025
Biomimetic Robotics Laboratory @ Massachusetts Institute of Technology (MIT)	11/2023

TEACHING EXPERIENCE

Probabilistic Artificial Intelligence (263-5210-00)	08/2025 - 02/2026
<i>Learning & Adaptive Systems Group (LAS) at ETH Zürich, lectured by A. Krause</i>	
Computational Models of Motion (263-5807-00)	02/2025 - 07/2025
<i>Computational Robotics Lab (CRL) at ETH Zürich, lectured by S. Coros</i>	
Probabilistic Artificial Intelligence (263-5210-00)	08/2024 - 02/2025
<i>Learning & Adaptive Systems Group (LAS) at ETH Zürich, lectured by A. Krause</i>	
Introduction to Machine Learning (252-0220-00)	02/2024 - 08/2024
<i>Learning & Adaptive Systems Group (LAS) at ETH Zürich, lectured by F. Perez Cruz, F. Yang</i>	
Dynamic Programming and Optimal Control (151-0563-01)	08/2022 - 02/2023
<i>Institute for Dynamic Systems and Control (IDSC) at ETH Zürich, lectured by R. D'Andrea</i>	
Recursive Estimation (151-0566-00)	02/2022 - 08/2022
<i>Institute for Dynamic Systems and Control (IDSC) at ETH Zürich, lectured by R. D'Andrea</i>	
Dynamic Programming and Optimal Control (151-0563-01)	08/2021 - 02/2022
<i>Institute for Dynamic Systems and Control (IDSC) at ETH Zürich, lectured by R. D'Andrea</i>	

SKILLS AND SERVICES

Language: Chinese (Native), English (C1), German (B2)
Programming: Python, C++, Git, Docker, L ^A T _E X, PyTorch, ROS
Journal Reviewer: T-RO, RA-L
Conference Reviewer: CoRL, ICRA, IROS, RLC, SIGGRAPH

SCHOLARSHIPS AND AWARDS

Outstanding Teaching Assistant Award	03/2022
ETH Zürich	Zürich, Switzerland
Friends of Tsinghua Scholarship – German Scholarship	10/2019
Tsinghua University	Beijing, China
Academic Excellence Scholarship	10/2018, 10/2019
Tsinghua University	Beijing, China
Volunteer Public Service Scholarship	10/2018
Tsinghua University	Beijing, China
Integrated Excellence Scholarship	10/2017
Tsinghua University	Beijing, China

06.11.2025