Jin Cheng

Wasserwerkstrasse 12, 8092 Zürich, Switzerland
https://jin-cheng.me/ | +41 76 515 52 91 | jin.cheng@inf.ethz.ch

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

TARC: Time-Adaptive Robotic Control (Under Review)
Arnav Sukhija, Lenart Treven, Jin Cheng, Florian Dörfler, Stelian Coros, Andreas Krause 09/2025

Whole-body Inverse Dynamics MPC for Legged Loco-manipulation (Under Review)
Lukas Molnar, Jin Cheng, Gabriele Fadini, Dongho kang, Fatemeh Zargarbashi, Stelian Coros 09/2025

Learning Steerable Imitation Controllers from Unstructured Animal Motions (Under Review)
Dongho Kang, Jin Cheng, Fatemeh Zargarbashi, Taerim Yoon, Sungjoon Choi, Stelian Coros 07/2025

**CAIMAN: Causal Action Influence Detection
for Sample-efficient Loco-manipulation (Under Review)**
Yuanchen Yuan, Jin Cheng, Núria Armengol Urpí, Stelian Coros 07/2025

RAMBO: RL-Augmented Model-Based Whole-Body Control for Loco-Manipulation (RA-L)
Jin Cheng, 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, Jin Cheng, 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, Jin Cheng, 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, Jin Cheng, Guillaume Sartoretti 02/2025

**RobotKeyframing: Learning Locomotion with High-Level Objectives
via Mixture of Dense and Sparse Rewards (CoRL 2024)**
Fatemeh Zargarbashi, Jin Cheng, Dongho Kang, Robert Sumner, and Stelian Coros 09/2024

Offline Diversity Maximization Under Imitation Constraints (RLC 2024)

Marin Vlastelica, Jin Cheng, Georg Martius, Pavel Kolev   05/2024

Learning Diverse Skills for Local Navigation under Multi-constraint Optimality (ICRA 2024)

Jin Cheng, 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, Jin Cheng, Miguel Zamora, Fatemeh Zargarbashi, Stelian Coros   09/2023

Haptic Teleoperation of High-dimensional Robotic Systems
Using a Feedback MPC Framework (IROS 2022)

Jin Cheng, Firas Abi-Farraj, Farbod Farshidian, Marco Hutter   10/2022

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
Learning & Adaptive Systems Group (LAS) at ETH Zürich, lectured by A. Krause

Computational Models of Motion (263-5807-00)   02/2025 - 07/2025
Computational Robotics Lab (CRL) at ETH Zürich, lectured by S. Coros

Probabilistic Artificial Intelligence (263-5210-00)   08/2024 - 02/2025
Learning & Adaptive Systems Group (LAS) at ETH Zürich, lectured by A. Krause

Introduction to Machine Learning (252-0220-00)   02/2024 - 08/2024
Learning & Adaptive Systems Group (LAS) at ETH Zürich, lectured by F. Perez Cruz, F. Yang

Dynamic Programming and Optimal Control (151-0563-01)   08/2022 - 02/2023
Institute for Dynamic Systems and Control (IDSC) at ETH Zürich, lectured by R. D'Andrea

Recursive Estimation (151-0566-00)   02/2022 - 08/2022
Institute for Dynamic Systems and Control (IDSC) at ETH Zürich, lectured by R. D'Andrea

Dynamic Programming and Optimal Control (151-0563-01)   08/2021 - 02/2022
Institute for Dynamic Systems and Control (IDSC) at ETH Zürich, lectured by R. D'Andrea

SKILLS AND SERVICES

Language: Chinese (Native), English (C1), German (B2)
Programming: Python, C++, Git, Docker, LaTeX, 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*

27.10.2025