

Jin Cheng

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EDUCATION

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| 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

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|---|-------------------|
| 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

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| Whole-Body Inverse Dynamics MPC for Legged Loco-Manipulation (RA-L) | |
| Lukas Molnar , Jin Cheng , Gabriele Fadini , Dongho kang , Fateme Zargarbashi , Stelian Coros | |
| | 11/2025 |
| 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) | |
| Fateme 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 , Fateme 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 |

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| Benchmarking Whole-Body Motion Tracking Policies via Just Dance: Using a Commercial Console Game for Embodied-AI Evaluation (Under Review) <i>Jeonghwan Kim, Wontaek Kim, Yidan Lu, Jin Cheng, Fatemeh Zargarbashi, Zicheng Zeng, Zekun Qi, Zhiyang Dou, Nitish Sontakke, Donghoon Baek, Li Yi, Sehoon Ha, Tianyu Li</i> | 11/2025 |
| 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

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| 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

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

SKILLS AND SERVICES

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

SCHOLARSHIPS AND AWARDS

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

25.11.2025