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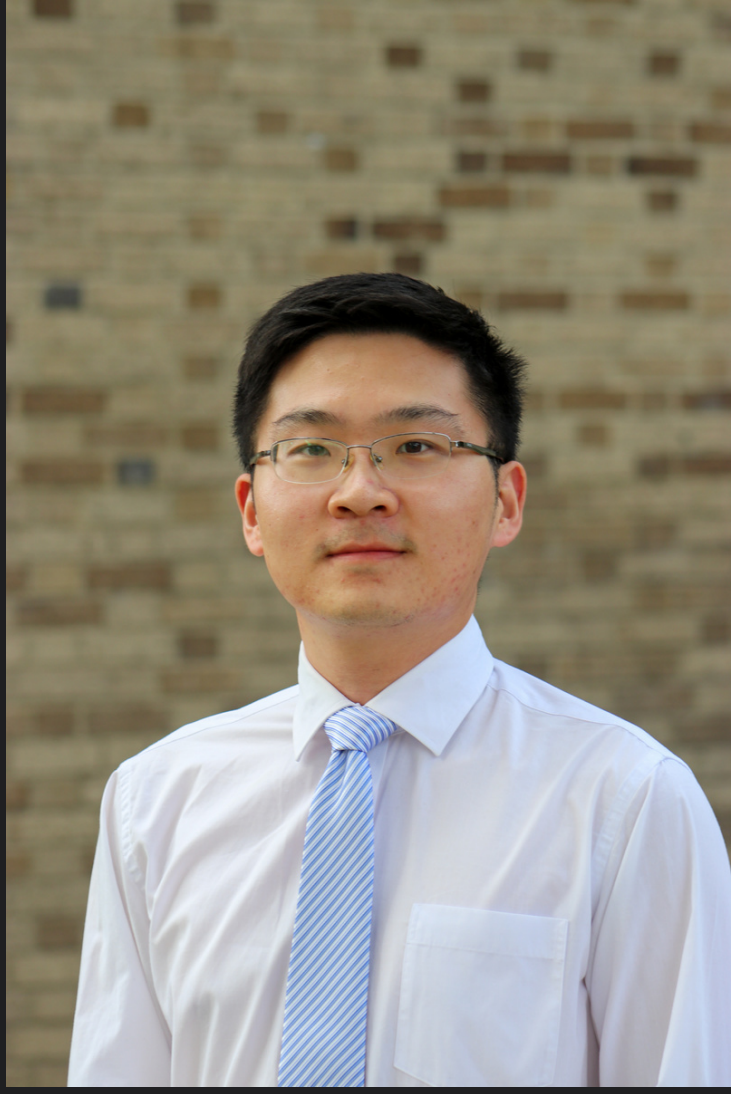


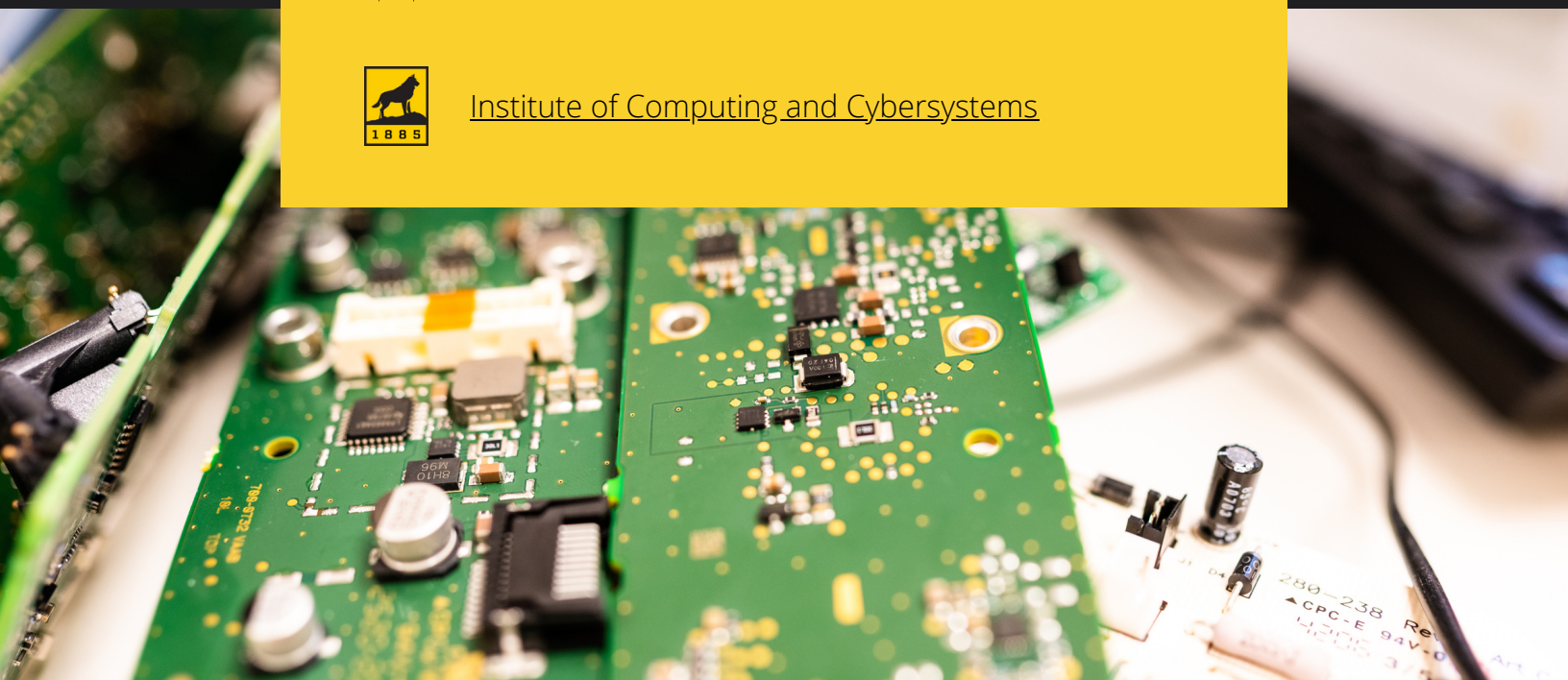
Research Interests

- Legged Locomotion
- Nonlinear Control
- Learning-based control
- Geometric mechanics
- Rehabilitation Robotics
- Collaborative Robots

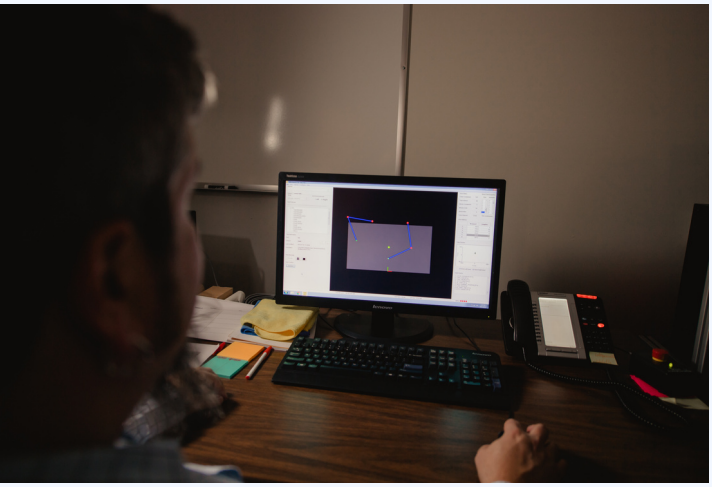
Links of Interest

Faculty Webpage

Institute of Computing and Cybersystems



Research Synopsis

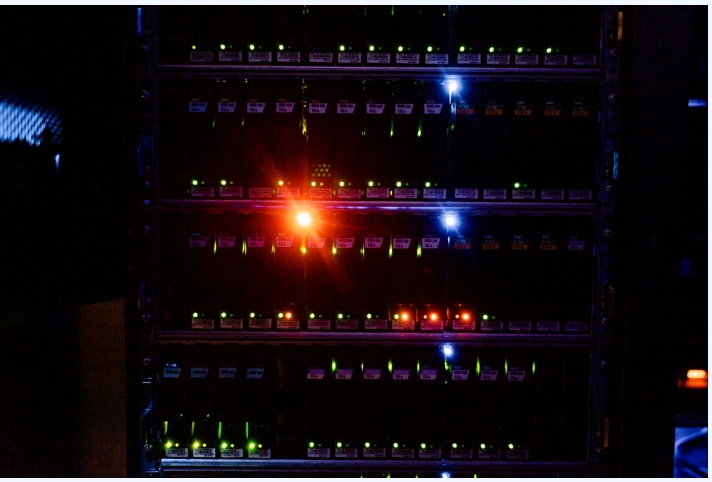


Robust Biped Locomotion on Slippery Surfaces

Investigate the slipping mechanics between foot and surfaces and design a slip-aware control framework for robust biped locomotion

Safe and Efficient Learning for Legged Locomotion under Uncertain Environments

Enable efficient learning for legged robot control by using high-fidelity simulation and develop a safe control learning framework with domain knowledge and control theory



Symmetric Neural Networks for Large-Scale Control Systems

Develop symmetric neural network-based tools to facilitate fractional-order derivative calculation and enable accurate modeling and robust control of large-scale systems

Robotic Technology in Stroke Rehabilitation

Evaluate the feasibility, usability, and effectiveness of using exoskeletons to improve the rehabilitation results for stroke survivors

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For more information

Publications