Jeremiah M. Coholich

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EDUCATION

PhD in Robotics, Georgia Institute of Technology — Expected Summer 2026
Advisor: Zsolt Kira

MS in Computer Science, Georgia Institute of Technology — December 2022
Concentration: Computational Perception/Robotics
GPA: 3.92 / 4.0

BS in Mechanical Engineering, The University of Texas at Austin, Highest Honors — 2019
GPA: 3.98 / 4.0

SKILLS

Languages	Python, MATLAB, Shell script
Frameworks	PyTorch, TensorFlow, NumPy
Tools	Docker, Slurm, LaTeX, Anaconda, Git, Linux, Matplotlib, Weights & Biases

EXPERIENCE

Graduate Researcher, Robot Perception and Learning Lab — June 2020 - Present

- Setup VR teleoperation pipeline with Meta Quest 3 and Franka Emika Panda Robot
- Fine-tune large vision-language models on robot demonstrations for manipulation
- Develop and implement novel learning-based planning and control algorithms for quadruped robots in simulation
- Implement pipeline for reproducible training of RL policies, multi-GPU policy evaluation, and data collection
- Advise two masters students

Research Scientist Intern, Honda Research Institute — June 2023 - September 2023

- Develop novel visual sim2real algorithms for deep learning-based dexterous manipulation
- Train and deploy neural network policies on multi-fingered dexterous hand with arm

Graduate Researcher, Laboratory for Intelligent Decision and Autonomous Robots — August 2019 - May 2020

- Studied nonlinear optimization of biped walking gaits on Cassie robot from Agility Robotics

Undergraduate Research Assistant, Human Centered Robotics Lab — February 2018 - May 2019

- Implemented a novel low-level force controller for arm exoskeleton under mentorship of PhD student
- Designed and fabricated an adjustable-stiffness flexure for arm exoskeleton

Associate Mechanical Engineer, SpaceX — Summer 2019

Mechanical Engineering Intern, Harmonic Bionics — Summer 2018

Mechanical Engineering Co-op, NASA Jet Propulsion Laboratory (JPL) — May 2017 - December 2017

- Mechatronics testing for percussive coring drill on Mars 2020 Perseverance Rover

PUBLICATIONS

Jeremiah Coholich, Justin Wit, Zsolt Kira. "Sim2real Image Translation Enables ViewpointRobust Policies from Fixed-Camera Datasets". Accepted at *CVPR 2025 Embodied AI Workshop*

Jeremiah Coholich, Muhammad Ali Murtaza, Seth Hutchinson, Zsolt Kira. "Hierarchical Reinforcement Learning and Value Optimization for Challenging Quadruped Locomotion". Accepted at *2025 American Control Conference.*

Xiaofeng Guo, Bryan Blaise, Jennifer Molnar, **Jeremiah Coholich**, Shantanu Padte, Ye Zhao, and Frank L. Hammond III. "Soft Foot Sensor Design and Terrain Classification for Dynamic Legged Locomotion". Accepted at *IEEE International Conference on Soft Robotics* 2020.

G. C. Thomas, **J. M. Coholich**, and L. Sentis, "Compliance Shaping for Control of Strength Amplification Exoskeletons with Elastic Cuffs," presented at *The IEEE/ASME International Conference on Advanced Intelligent Mechatronics*, Hong Kong, China, 2019

David Bourell, **Jeremiah Coholich**, Antoine Chalancon, Abhimanyu Bhat. "Evaluation of energy density measures and validation for powder bed fusion of polyamide." *CIRP Annals Manufacturing Technology Vol. 1, 66* (Aug. 2017), pp. 217-220.

TEACHING

Teaching Assistant, CS 7643 Deep Learning — Fall 2023 - Present

Graduate Student Mentor, Create-X Capstone Projects — Spring 2020

FIRST Robotics Mentor, Cristo Rey Jesuit High School — Fall 2019 - Spring 2020

Teaching Assistant, COE 3001 Mechanics of Deformable Bodies — Summer 2020

AWARDS

- National Defense Science and Engineering Graduate (NDSEG) Fellowship, 2020
- NASA Space Technology Graduate Research Opportunities (NSTGRO) Fellowship, 2020 (declined)
- Georgia Tech President's Fellowship, 2019
- George W. Bean Endowed Presidential Scholarship, 2016 - 2019