Jeremiah M. Coholich

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OBJECTIVE

Robotics PhD candidate seeking research positions focused on imitation learning, reinforcement learning, and vision-language-action (VLA) models. Available starting March 2027.

EDUCATION

PhD in Robotics, Georgia Institute of Technology — Expected Spring 2027
Advisor: Zsolt Kira
Thesis: Demonstration-efficient Robot Learning via Autonomous Data Collection

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

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

EXPERIENCE

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

- Developed a VR teleoperation and data collection system using Meta Quest 3 and Franka Panda robots, adopted lab-wide for robotic manipulation research.
- Built end-to-end robot learning infrastructure used across the lab, integrating demonstration collection, policy training, autonomous rollouts, evaluation, reward labeling, and offline reinforcement learning.
- Develop highly-accurate digital twin in IsaacSim and policy evaluation pipeline for dexterous tasks

AI Resident, 1X Technologies — September 2025 - December 2025

- Developed simulation infrastructure for policy training, automated evaluation, and large-scale data collection
- Contributed to the development of learning-based robot behavior models for general-purpose humanoids

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

Associate Mechanical Engineer, SpaceX — Summer 2019

- Test, redesign, and procure three different seals on the Dragon 2 Capsule

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

Mechanical Engineering Intern, Harmonic Bionics — Summer 2018

- Iterate on design for six robotics linkages, including FEA, safety, aesthetics, wiring, drawings, and procurement
- Designed and machined stand for upper-body exoskeleton with spring counterbalance mechanism
- Assisted with branding, shipping, and design of sales demo kits for proprietary EtherCAT devices

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

- Ran hardware testing campaign for percussive coring drill in Mars 2020 Perseverance Rover
- Designed and procured ground support equipment and testing fixtures
- Analyzed data collected from actuators, springs, and piezoelectric force sensors on percussion mechanism

Team Captain and Co-founder, Longhorn Racing Electric FSAE Team August 2015 - June 2017

- Ran a team of 46 members to build an electric, single-seater, formula-style racecar for 2017 competition
- Personally secured over $7,000 worth of material and monetary donations
- Designed and manufactured electric powertrain with single motor, chain drive, and spool

PUBLICATIONS

Yusuf Ali, **Jeremiah Coholich**, Karthik Kothuri, Gryphon Patlin, Muhammad Zubair Irshad, Wuwei Liang, Zsolt Kira. "EVE: A Generator-Verifier System for Generative Policies". *Preprint.*

Jaehyeon Son, Junhyun Kim, Kyle Kam, **Jeremiah Coholich**, Seok Joon Kim, Jinhoo Kim, Chris Dongjoo Kim, Jaemin Cho, Dieter Fox, Zsolt Kira "SeeTraceAct: Visibility-Aware Latent Planning from Cross-Embodiment Demonstration Videos". Accepted at *2026 Conference on Robot Learning*

Jeremiah Coholich, Justin Wit, Robert Azarcon, Zsolt Kira. "Sim2real Image Translation Enables Viewpoint Robust Policies from Fixed-Camera Datasets". Presented at *2026 IEEE International Conference on Robotics and Automation*

Jeremiah Coholich, Muhammad Ali Murtaza, Seth Hutchinson, Zsolt Kira. "Hierarchical Reinforcement Learning and Value Optimization for Challenging Quadruped Locomotion". Presented 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

- Advise three teams of undergraduate students on their startup-orientated capstone projects

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