

Ethan M. Clark

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[GitHub](#) | [LinkedIn](#) | [Website](#)

Industry Experience

Institute for Human and Machine Cognition (IHMC)

Pensacola, FL, USA

Robotics Software Engineer Intern

Sept. 2024 – Dec. 2024

- Built an imitation learning pipeline for bipedal locomotion using markerless motion capture and state-of-the-art methods from character animation to produce a robust and stable motion controller to be integrated with IHMC's humanoid robot, Nadia

Crow Industries Inc.

Scottsdale, AZ, USA

Machine Learning Engineer Intern

June 2024 – Sept. 2024

- Led autonomy development for an unmanned ground vehicle, implementing reinforcement learning (RL) for end-to-end obstacle avoidance and navigation in geographical mapping and mining operations

Academic Experience

Cooperative Robotic Systems Lab

Tempe, AZ, USA

Graduate Researcher

Aug. 2022 – present

Advisor: Dr. [Yu Zhang](#), Arizona State University

- Formalized the Environment Reconfiguration problem, demonstrating how complex RL tasks can be optimized through a two-stage process: first, performing an order-invariant meta-optimization to reconfigure the environment, then allowing agents to operate within this optimized setting, thereby increasing the ceiling on maximum achievable performance
- Developed Commutative RL, a novel algorithm that extends traditional reinforcement learning to efficiently solve order-invariant problems

Nebraska Intelligent Mobile Unmanned Systems Lab

Lincoln, NE, USA

Visiting Undergraduate Researcher

May 2021 – Aug. 2021

Advisor: Dr. [Hoang-Dung Tran](#), University of Nebraska-Lincoln

- Built autonomous emergency brake and lane-keep assist systems for F1Tenth cars, integrating sensor fusion, computer vision, and control algorithms to achieve robust autonomy in high-speed environments

Personal Projects

Co-Bot

- Designed an autonomous mini robot using ROS with real-time tracking, obstacle avoidance, and path planning in dynamic environments

Programming Skills

Languages: Python, C++, Bash

Frameworks: PyTorch, ROS 2

Simulators: Isaac Sim, Gazebo, CARLA

Others: Docker, AWS, Capture Live, Blender, Unity, Weights & Biases

Education

Arizona State University

Tempe, AZ, USA

M.S. degree in Computer Science

Aug. 2022 – May 2025

Magna Cum Laude

GPA 3.72

Arizona State University

Tempe, AZ, USA

B.S. degree in Computer Science

Aug. 2018 - May 2022

Magna Cum Laude

GPA 3.67