Evan Palmer

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EDUCATION

Oregon State University

2022 - Present

Ph.D., Robotics, 4.0 GPA

Advised by Dr. Geoffrey Hollinger

University of Nebraska-Lincoln

2018 - 2022

B.S., Software Engineering, Highest Distinction, 3.98 GPA

Advised by Dr. Brittany Duncan

RESEARCH EXPERIENCE

Robotic Decision Making Lab (RDML)

2022 - Present

Graduate Research Fellow

- Advancing kinodynamic motion planning algorithms and dynamic control techniques for underwater vehicle manipulator systems.

Nebraska Intelligent Mobile Unmanned Systems (NIMBUS) Lab

2020 - 2022

Undergraduate Research Assistant

- Created *pymavswarm*, a Python library for developing swarm algorithms and for deploying drone swarms to field environments.
- Successfully designed and deployed a novel multi-agent collision avoidance algorithm using reachability analysis.
- Advanced Human-Robot Interaction research by implementing an sUAS pilot proficiency determination system using distancing algorithms and spectral analysis.

INDUSTRY EXPERIENCE

Marble Technologies

2022

Robotics Engineer Intern

- Developed a ROS 2 robotic manipulation system for the food processing industry.
- Delivered an MVP in three months, supporting demonstrations leading to pre-orders and a \$10M Series A.
- Supported hiring and networking efforts by facilitating meetings leading to one core Senior Engineering hire and collaborations with academic partners.

Raytheon BBN Technologies

2021

Software Engineer Intern

- Led the development of swarm technologies used by United States Air Force Academy and West Point cadets for integrating innovative offensive and defensive robot swarm tactics.
- Supported integration of small fixed-wing aircraft into the DARPA OFFSET program which successfully demonstrated field deployment of a swarm with over 100 robots.

AWARDS

National Defense Science and Engineering Graduate (NDSEG) Fellowship	2022
Outstanding University of Nebraska-Lincoln Software Engineering Senior Award	2022
University of Nebraska-Lincoln Lockard Scholarship	2020
University of Nebraska-Lincoln Regents Scholarship	2018
MENTORSHIP	
John Delfosse (Undergraduate at University of Nebraska-Lincoln, NSF REU)	2022
Mikil Foss (Undergraduate at University of Minnesota Twin Cities)	2022
Outreach	

JSHS Mentor 2022

- Mentored high school students working to compete at the Junior Science and Humanities Symposium.

Nebraska Hour of Code 2021

- Created and led a robotics activity to teach K-8 students from across Nebraska about the field of robotics.

Admitted Student Day - Drones and Robotics

2021

- Spoke to 100 high school seniors about undergraduate majors and research opportunities at the University of Nebraska-Lincoln.

PUBLICATIONS

PEER-REVIEWED JOURNAL PUBLICATIONS

- S. Kunde, **E. Palmer**, and B. Duncan, "Recognizing User Proficiency in Piloting Small Unmanned Aerial Vehicles (sUAV)", *IEEE Robotics and Automation Letters (RA-L)*, 2022