

Nathan Hewitt

1026 NW 23rd St, Corvallis, OR 97330

hewittna@oregonstate.edu • (980) 210 5464 • GitHub: nhewitt99

EDUCATION

Oregon State University, Corvallis, OR

September 2021 – Current

Bachelor of Science, Computer Engineering; GPA 3.976

Minors in Mathematics and Artificial Intelligence

University of North Carolina at Charlotte, Charlotte, NC

September 2017 – May 2021

Bachelor of Science, Computer Engineering; GPA 3.976

Minors in Mathematics and Artificial Intelligence

RESEARCH EXPERIENCE

West Virginia University, Mechanical and Aerospace Engineering

Research Assistant

June 2020 – August 2020

Advisor: Dr. Yu Gu

Investigated soft, socially-legible robotic control in pedestrian environments with reinforcement learning, to produce behavior that is safe, easily understood by observers, and resilient to unknowns. Tailored neural network approximators for training on the resultant high-dimensional problem. Designed simulation environments and models for Gazebo.

Grantee, NSF Research Experience for Undergraduates

May – July 2019

Advisors: Dr. Yu Gu and Dr. Jason Gross

Generated a novel testbed for swarm robotics, integrating physical robots, simulated environments, and gesture recognition together to accelerate development of human-swarm interaction algorithms. Wrote and troubleshoot C++ ROS code to communicate with up to 50 robots and to interface with Kinect and Vicon systems.

University of North Carolina at Charlotte, Electrical and Computer Engineering

Research Assistant

January – December 2019

Advisor: Dr. Andrew Willis

Contributed to existing work on bone fracture reconstruction and assessment from CT images, upgraded a segmentation process to run multithreaded and significantly decreased runtime. Explored decentralized SLAM algorithms tunable to network and speed constraints.

HONORS AND SCHOLARSHIPS

Engineering Honors Program, UNCC	September 2020 – Present
Fietchner Scholarship, UNCC	August 2018 – Present
Chancellor's List, UNCC	December 2017 – Present
Alumni Association Scholarship, UNCC	August 2019 – May 2020
Fulbright Summer Institute , Glasgow, Scotland	August 2019

PUBLICATIONS

N. Dhanaraj et al., "Adaptable Platform for Interactive Swarm Robotics (APIS): A Human-Swarm Interaction Research Testbed," *19th IEEE Int. Conf. on Adv. Robotics*, Belo Horizonte, Brazil, 2019, pp. 720-726 [**second author**]

LEADERSHIP AND SERVICE

Senior Design

Team Lead September 2020 – Present
Responsible for organizing meetings and communication between team members and faculty mentor and compiling documentation and notes of project progress.

University Honors Program

Ambassador August 2019 – Present
Arrange social and enrichment activities for members, participate in panels and other recruitment events, ensure new members are welcomed and have access to honors resources.

Charlotte Re-Cyclery

Volunteer Mechanic January – May 2019
Organized shop inventory, cleaned and repaired bicycles to raise funds for a local youth program.

MEMBERSHIP

IEEE Student Chapter, UNCC	September 2018 – Present
University Honors Program, UNCC	August 2017 – Present

PROFESSIONAL EXPERIENCE

University of North Carolina at Charlotte, Charlotte, NC

Teaching Assistant for ENGR 1201

August – December 2018

Fostered student growth for freshmen in the engineering introductory course, graded most assignments, clarified course topics, ran review sessions, and answered questions pertaining to both course information and engineering careers.

Hendrick Motorsports, Concord, NC

Quality Assurance Intern

May – August 2018

Developed and tested software to ensure quality of new and used parts. Wrote scripts in C# and VB to streamline data entry during inspection. Performed black-box testing of upcoming database software version, successfully identifying memory leaks.