

Farhan Rozaidi

Robotist, Corvallis, OR 97330
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Objective

Ph.D student in Robotics searching for a Research Internship for Summer 2023. Experienced in developing novel soft robotic prototypes, modeling robot locomotion using geometric mechanics, and simulating complex kinematic robot systems.

Education

Oregon State University, Corvallis, OR

Expected June 2025

- Doctor of Philosophy: Robotics
- Current Research: Soft Snake Robotics
- Relevant Work: Differential Geometry; Geometric Mechanics; Kinematic, Dynamics, and Control

3.96 GPA

Trinity College, Hartford, CT

September 2016 - May 2020

- Bachelor of Science: Engineering (Concentration, Mechanical Engineering)
- Bachelor of Science: Environmental Science
- Minor: Marine Studies
- Summa Cum Laude

3.99 GPA

Research Experience

Soft Snake Robot Design and Analysis, Oregon State University, *Graduate Research Assistant*

September 2020 - Present

- Design and build novel geometric configurations for soft snake robots
- Analyze and predict the kinematics and locomotion of soft snake robots
- Integrate soft sensors onto soft snake robots for environmental inspection

Chemical Kinetics and Combustion Computations, Trinity College, *Undergraduate Researcher*

January 2017 - May 2020

- Analyzed dimethyl methylphosphonate (DMMP) as a potential sarin surrogate for disposal testing
- Predicted species plots using an extensive chemical kinetics database
- Extrapolated thermodynamic data for DMMP

Conference Papers

Farhan Rozaidi, Emma Waters, Olivia Dawes, Jennifer Yang, Joseph R. Davidson, Ross L. Hatton. "HISSbot: Sidewinding with a Soft Snake Robot". In: 2023 IEEE International Conference on Soft Robotics (RoboSoft). 2023.

Bill Fan, Farhan Rozaidi, Caprin Bass, Gina Olson, Melinda Malley, and Ross L. Hatton. "Linear Kinematics for General Constant Curvature and Torsion Manipulators". In: 2023 IEEE International Conference on Soft Robotics (RoboSoft). 2023.

Calder Wilson, Joseph Karam, Callen Votzke, Farhan Rozaidi, Camille Palmer, Ross L. Hatton, and Matthew L. Johnston. "Modular Sensor Integration Into Soft Robots for Nuclear Inspection Using Stretchable Wires". In: 2023 IEEE International Conference on Soft Robotics (RoboSoft). 2023.

Teaching Experience

Introduction to Robotics II, Oregon State University, *Graduate Teaching Assistant*

January 2023 - Present

- Assist graduate students with programming and hardware for robot kits
- Develop course lessons and update syllabus to reflect manufacturer software updates
- Debug networking issues related to remote access of Linux-based software on enterprise networks

Skills

Languages: Python, MATLAB, R, C++

Design: Autodesk Inventor, Fusion360, SolidWorks, COMSOL

Frameworks: ROS

Honors

Honor Societies: Pi Tau Sigma, Phi Beta Kappa