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## Education

- 2021 – Present **Ph.D. Student in Computer Science**, *University of Colorado Boulder (CU Boulder)*, Boulder, CO, USA, Advisor Prof. Alessandro Roncone
- 2016 – 2017 **Masters's Degree in Advanced Robotics II (EMARO+)**, *Jaume I University*, Castellón, Spain
- 2015 – 2016 **Masters's Degree in Advanced Robotics I (EMARO+)**, *École Centrale de Nantes*, Nantes, France
- 2012 – 2015 **Bachelor's Degree in Mechanical Engineering**, *University of Connecticut (UConn)*, Storrs, CT, USA

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## Awards and Honors

- 2024 – 2026 **Apple Artificial Intelligence and Machine Learning (AIML) Fellowship**
- 2021 – 2024 **National Science Foundation Graduate Research Fellowship (NSF GRFP)**
- 2021 **Early Career Professional Development Fellowship**
- 2014 **Pratt & Whitney Teaching and Mentoring Fellowship**
- 2012 – 2015 **Dean's List, School of Engineering Academic Scholarships**

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## Work Experience

- Summer 2024 **AIML Research Science Intern**, *Apple*, Cupertino, CA, USA  
Researched data collection methods for Imitation Learning.
- 2018 – 2021 **Robotics Software Engineer**, *LUUM*, Berkeley, CA, USA  
Core developer of the software architecture for robot applied eyelash extensions.
- 2017 – 2018 **Robotics Software Engineer**, *Dorabot*, Shenzhen, Guangdong Province, China  
Core developer of the robot package and mail sorting solution.
- Summer 2015 **Ship Systems Engineering Intern**, *General Dynamics EB*, New London, CT, USA  
Analyzed electro-mechanical devices for chilled water systems in submarines.
- Summer 2014 **Combustion Engineering Intern**, *Zeeco*, Plainville, CT, USA  
Designed cost-efficient valve train assemblies for burner and boiler systems.

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## Academic Service

- 2025 **Co-organizer of the Navigating Contact Dynamics in Robotics Workshop**, *RSS 2025*, Los Angeles, CA, USA
- 2021-2025 **Reviewer for conferences, journals, and workshops**  
International Conference on Intelligent Robots and Systems (IROS 2023), International Conference on Robotics and Automation (ICRA 2024), Robotics and Automation Letters (RA-L 2025), Workshops at Robotics Science and Systems (RSS 2022 and 2025)
- 2022 **Co-organizer of the Close-Proximity Human-Robot Collaboration Workshop**, *RSS 2022*, Columbia University, NY, USA

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## Community Service

- 2025 **Launching ‘Ideas in Motion’**, *CU Boulder*, CO, USA  
Organized an interactive poster session to boost collaboration between the graduate students in the engineering department.
- 2022 **Leading a Robotics Summer Camp**, *Lafayette Public Library*, Lafayette, CO, USA  
Raised funding and led a robotics summer camp for middle schoolers. The goal of the camp was to bring robotics to children in the community.
- 2012 – 2015 **Volunteer at the Science Bowl and Science Olympiad**, *UConn*, Storrs, CT, USA

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## Teaching and Mentoring

- 2021-2025 **Research Mentorship**, *CU CS Department*, Boulder, CO, USA  
1 PhD student, 7 Master’s students, 3 Undergraduate students.
- 2025 **Workshop on Research Fellowships**, *CU CS Department*, Boulder, CO, USA  
Advised students on how to secure external funding for their PhD research.
- 2024 **Career Mentorship**, *CU CS Department*, Boulder, CO, USA  
Led several sessions with career advice for prospective PhD students.
- 2014 **Teaching Assistant Thermodynamics**, *UConn ME Department*, Storrs, CT, USA
- 2012 – 2013 **Physics and Math Tutor**, *UConn Quantitative Learning Center*, Storrs, CT, USA

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## Entrepreneurship

- Summer 2025 **Independent Consultant**, *Curate Innovation*, Boulder, CO, USA  
Offering specialized expertise for a company (details cannot be disclosed).
- Summer 2025 **NSF I-Corps R2M**, *Venture Partners at CU Boulder*, Boulder, CO, USA  
Over four-weeks, our team dove deeper into customer discovery and finding a market for our innovation.
- Spring 2025 **NSF I-Corps Starting Blocks**, *Venture Partners at CU Boulder*, Boulder, CO, USA  
Over three weeks, our team gained an introductory understanding of the commercialization process and tested ideas with real potential customers.

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## Skills

- Software and Hardware Programming (C++ , C, Python, Matlab, JS, Tex), ROS1, ROS2, Drake, MoveIt!, OMPL, PyBullet, PyTorch, Isaac Sim, CuRobo. Panda, Baxter, Sawyer, Iris Drone, PUMA, Yaskawa, EPSON, Interbotix, and Staubli Robotics Arms. Kinect, RealSense, ZED, and Luxonis Cameras
- Languages Fluent in English, Ukrainian, and Russian. Conversational French and Spanish.

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## Publications

- N. Nechyporenko, Y. Zhang, S. Campbell, and A. Roncone, “Morphyt: Flexible spherical approximation of robot morphology for representation-driven adaptation,” in *IEEE Transactions on Robotics (T-RO)*, 2025 [**Under Review**].
- N. Nechyporenko, H. Ryan, C. Webb, M. Sivapurapu, and J. Zhang, “Armada: Augmented reality for robot manipulation and robot-free data acquisition,” in *IEEE Robotics and Automation Letters (RA-L)*, 2025 [**Under Review**].
- Y. Gautam, N. Nechyporenko, C.-H. Lin, A. Roncone, and M. M. Nicotra, “Compliant

explicit reference governor for contact,” in *Workshop on Human-Robot Contact and Manipulation (HRCM RSS)*, 2025.

P. Huang, Y. Hu, **N. Nechyporenko**, D. Kim, W. Talbott, and J. Zhang, “Emotion: Expressive motion sequence generation for humanoid robots with in-context learning,” in *IEEE Robotics and Automation Letters (RA-L)*, 2025.

**N. Nechyporenko**, C. Escobedo, S. Kadekodi, and A. Roncone, “CAT-RRT: Motion planning admits contact one link at a time,” in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2023.

C. Escobedo, **N. Nechyporenko**, S. Kadekodi, and A. Roncone, “A framework for the systematic evaluation of obstacle avoidance and object-aware controllers,” in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2022.

**N. Nechyporenko**, A. Morales, and A. P. del Pobil, “Grasping strategies for picking items in an online shopping warehouse,” in *Intelligent Autonomous Systems (IAS 15)*, 2019.

J. Perez, A. C. Attanasio, **N. Nechyporenko**, and P. J. Sanz, “A deep learning approach for underwater image enhancement,” in *Biomedical Applications Based on Natural and Artificial Computing: International Work-Conference on the Interplay Between Natural and Artificial Computation (IWINAC)*, 2017.

A. P. del Pobil, M. Kassawat, A. J. Duran, M. Arias, **N. Nechyporenko**, A. Mallick, E. Cervera, D. Subedi, I. Vasilev, D. Cardin, *et al.*, “UJI RobInLab’s approach to the Amazon Robotics Challenge 2017,” in *IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems (MFI)*, 2017.