

SIDHARTH TALIA

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EDUCATION

University of Washington Seattle – Paul G. Allen School of Computer Science Ph.D. in Computer and Information Science	2022 - 2027 WA, USA Cumulative GPA: 3.89
Guru Gobind Singh Indraprastha University Delhi — Bharati Vidyapeeth College of Engineering Delhi Bachelor of Technology in Electrical and Electronics Engineering	2016 - 2020 Delhi, IND Cumulative GPA: 8.81/10.0

EXPERIENCE

University of Washington, Seattle <i>Graduate RA/TA, Advisor: Dr. Siddhartha S. Srinivasa</i>	Sep 2022 - Present Seattle, WA, USA
<ul style="list-style-type: none">• RA, focusing on field robotics. Part of the RACER team• TA for CSE478: Autonomous robotics (Spr '23, Spr '24)	
Indian Institute of Technology(I.I.T.)-Delhi <i>DLive project assistant, Advisor: Dr. Sunil Jha</i>	Jan 2022 - June 2022 Delhi, IND
<ul style="list-style-type: none">• Created a system for improving lane center estimation on adverse Indian road conditions that could also be used for automatic generation of lane marker labels.	
University of Washington, Seattle <i>PRL remote intern, Advisor: Dr. Siddhartha S. Srinivasa</i>	April 2020 - 2022 Seattle(Remote), WA, US
<ul style="list-style-type: none">• Project lead for PuSHR (IROS 2023): A multi-robot system for non-prehensile rearrangement• Improving lane tracking of an imitation learning agent by predicting trajectories instead of single timestep actions	
Consultant/Freelance software engineer <i>Self-employed</i>	October 2020 - December 2021 Delhi, IND
<ul style="list-style-type: none">• Providing consultancy/software engineering services to start-ups in the automation sector	
Indian Institute of Technology(I.I.T.)-Delhi <i>DLive project intern, Advisor: Dr. Sunil Jha</i>	June 2019 - July 2020 Delhi, IND
<ul style="list-style-type: none">• State estimation lead for GPS-INS Odometry. Integrated and deployed intrinsic state estimation on a full-scale vehicle	
Botlab Dynamics <i>RnD intern</i>	February 2019 - April 2019 Delhi, IND
<ul style="list-style-type: none">• Created and deployed a visual odometry system for high altitude navigation with quadcopters with < 3% drift over desert-like terrain	
Indian Institute of Technology(I.I.T.)-Delhi <i>Celestini program India 2018 project intern, Advisor: Dr. Aakanksha Chowdhery</i>	June 2018 - August 2018 Delhi, IND
<ul style="list-style-type: none">• Created a low-cost (< \$100) Advanced Driver Assistance System (ADAS) coupled with V2V communication	
Omnipresent RobotTech <i>Intern</i>	June 2016 - October 2017 Delhi, IND
<ul style="list-style-type: none">• Created a quadcopter flight controller to learn about control systems, state estimation, hardware design, and basics of computer vision	

PUBLICATIONS

- Sidharth Talia, Matt Schmittle, Alexander Lambert, Alexander Spitzer, Christoforos Mavrogiannis, Siddhartha S. Srinivasa. “Demonstrating HOUND: A Low-cost Research Platform for High-speed Off-road Underactuated Nonholonomic Driving”. Robotics: Science and Systems 2024. ([Paper](#), [Website](#))
- Sidharth Talia*, Arnav Thareja*, Christoforos Mavrogiannis, Matt Schmittle, and Siddhartha S. Srinivasa. “PuSHR: A Multirobot System for Nonprehensile Rearrangement.” (IROS 2023, [Paper](#), [Github](#))
- Sidharth Talia, “A multimodal approach for localization of Ackerman steering micro ground vehicles in bad GPS reception environments.” In 2019 3rd International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), pp. 64-69. IEEE, 2019. ([Paper](#), [Github](#))

PROJECTS

- Low-cost research platform for researching aggressive offroad autonomy ([HOUND](#))
- Multi-robot non-prehensile rearrangement system ([PuSHR](#))
- Integration of MuSHR into a Unity-based simulator for reinforcement learning [link](#)
- Leveraging Bezier curves for deep learning based autonomous navigation [link](#)
- Low-cost inertial navigation system [link](#).

SKILLSET

- Languages: Python, C++
- Frameworks: Pytorch, OpenCV, PyCUDA, ROS.
- Embedded systems: Familiar with Ardupilot and Px4 frameworks.
- CAD: Autodesk Fusion 360.