SIDHARTH TALIA

·LinkedIn

EDUCATION

University of Washington, Seattle 2022 – 2027
Paul G. Allen School of Computer Science and Engineering WA, USA
Ph.D. in Computer Science GPA: 3.87/4.0

Guru Gobind Singh Indraprastha University, Delhi 2016 – 2020
Bharati Vidyapeeth College of Engineering Delhi, India
B.Tech. in Electrical and Electronics Engineering GPA: 8.81/10

EXPERIENCE

University of Washington, Seattle Sep 2022 - Present
Graduate RA/TA, Advisor: Prof. Siddhartha S. Srinivasa *WA, USA*

- Conducting Research on Planning and Robotic systems (See)
- Teaching Assistant for CSE478: Autonomous Robotics (Spring '23, '24, '25).

IIT Delhi Jan 2022 – Jun 2022
Project Assistant, Advisor: Prof. Sunil Jha Delhi, India

- Developed a lane-level localization pipeline combining learned lane detection with GPS–INS odometry.
- Work funded by TiHAN IIT Hyderabad.

University of Washington (remote) Apr 2020 – 2022
Research Intern/Volunteer, Advisors: Prof. Christoforos Mavrogiannis, Prof. Siddhartha S. Srinivasa WA, USA

- Led development of a multi-robot non-prehensile manipulation system (PuSHR).
- Implemented imitation-learning and RL pipelines for closed-loop control in simulation.

IIT Delhi Jun 2019 – Jul 2020
Research Intern, Advisor: Prof. Sunil Jha Delhi, India

- State estimation lead for an autonomous driving platform; integrated GPS–IMU–wheel odometry using Ardupilot.

Botlab Dynamics February 2019 - May 2019
Intern *Delhi, IND*

- Implemented and deployed visual odometry systems for high altitude navigation for UAVs.

IIT Delhi Jun 2018 – Sep 2018
Intern, Advisor: Dr. Aakanksha Chowdhery Delhi, India

- Developed a low-cost (< $100) ADAS with V2V communication.

Omnipresent RobotTech June 2016 - October 2017
Intern *Delhi, IND*

- Implemented and deployed flight control systems for multi-rotor UAVs

SKILLSET

- Languages: Python, C++, CUDA C++
- Frameworks / Libraries: PyTorch, ROS/ROS2, OpenCV, Ardupilot
- Robotics: Search-based Planning, Model Predictive Control, State estimation
- Systems: GPU-accelerated algorithms, PyTorch C++ extensions, Embedded systems, real-time robotics stacks
- Hardware / CAD: System integration, Autodesk Fusion 360

PUBLICATIONS

Sidharth Talia, Oren Salzman, Siddhartha Srinivasa. "Incremental Generalized Hybrid A*." *IEEE Robotics and Automation Letters*, Nov 2025. Paper · Website

Matt Schmittle, Rohan Baijal, Nathan Hatch, Rosario Scalise, Mateo Guaman Castro, **Sidharth Talia**, Khimya Khetarpal, Byron Boots, Siddhartha Srinivasa. "Long Range Navigator (LRN): Extending Robot Planning Horizons Beyond Metric Maps." *CoRL 2025*. Paper · Video

Tyler Han, Preet Shah, Sidharth Rajagopal, Yanda Bao, Sanghun Jung, **Sidharth Talia**, Gabriel Guo, et al. "WheeledLab: Modern Sim2Real for Low-cost, Open-source Wheeled Robotics." *CoRL 2025*. Paper · Website

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." *RSS 2024*. Paper · Website

Sidharth Talia, Arnav Thareja, Christoforos Mavrogiannis, Matt Schmittle, Siddhartha S. Srinivasa. "PuSHR: A Multirobot System for Nonprehensile Rearrangement." *IROS 2023*. Paper · Code

Sidharth Talia. "A Multimodal Approach for Localization of Ackermann-steering Micro Ground Vehicles in Poor GPS Environments." *RDCAPE 2019*. Paper · Code

PROJECTS

- Low-cost research platform for aggressive offroad autonomy (HOUND)
- Multi-robot non-prehensile rearrangement system (PuSHR)
- Imitation and reinforcement learning with the MuSHR platform link
- Low-cost inertial navigation system link.