RAJAT KUMAR JENAMANI

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I'm a final-year Ph.D. candidate at Cornell, building learning-based robots that perform useful real-world tasks with and around humans over the long term. My work has earned awards at top robotics venues (RSS, HRI, ICRA, IROS).

EDUCATION

Cornell University
Ph.D. in Computer Science   2021 - Present
GPA 4.13/4.0   *Advisor*: Tapomayukh Bhattacharjee

Indian Institute of Technology Kharagpur
B. Tech. in Computer Science and Engineering   2017 - 2021
GPA 9.68/10.0 (2nd highest in the CS graduating class)   *Advisor*: Partha P. Chakrabarti

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EXPERIENCE

EmPRISE Lab, Cornell University - PhD Student   Aug 2021 - Present
Deploying Physical Caregiving Robots that Personalize   *Advisor*: Tapomayukh Bhattacharjee

Robotics and AI Institute - Research Scientist Intern   May 2025 - Present
Memory in Visuomotor Learning + Steering Pretrained Generalist Policies   *Manager*: David Watkins

Stanford Artificial Intelligence Lab - Visiting Student Researcher   Jun - Aug 2023
Long-Horizon Task Planning for Food Acquisition Leveraging Foundation Models   *Advisor*: Dorsa Sadigh

Microsoft - Software Engineering Intern   May - July 2020
Automating Outlook Actionable Messages Approval   *Team*: Office 365 Ecosystem Team (India)

Search Based Planning Lab, Carnegie Mellon University - Research Intern   May - July 2020
Task and Motion Planning with Selective Physics-Based Simulations   *Advisor*: Maxim Likhachev

Personal Robotics Lab, University of Washington - Research Intern   May - July 2019
Multi-Agent Motion Planning for Robotic Arms   *Advisor*: Siddhartha Srinivasa

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AWARDS

Best Paper Award, RSS 2025
HRI Pioneer, HRI 2025
Finalist for Best Paper Award / Best Student Paper Award, ICRA 2025
Best Demo Award, HRI 2024
Best Paper Honorable Mention, HRI 2024
Cornell University Outstanding TA Award, 2024 for Robot Manipulation
Cornell University Outstanding TA Award, 2023 for Foundations of Robotics
Best RoboCup Paper Award and Finalist for Best Paper Award / Best Student Paper Award, IROS 2022
Cornell University Ph.D. Fellowship 2021-22
Best Undergraduate Thesis Award 2021 - CS, IIT Kharagpur
Student Par Excellence Award 2020 - CS, IIT Kharagpur
Tower Research Capital India Merit Scholarship 2020

SELECTED PUBLICATIONS

(* denotes equal contribution)

Scaling Short-Term Memory of Visuomotor Policies for Long-Horizon Tasks
by R. Shah, R. K. Jenamani, X. Zhang, L. Sun, R. Martín-Martín, Y. Zhu, D. Ramanan, K. Schmeckpeper
In *Submission, 2026*

FEAST: A Flexible Mealtime-Assistance System Towards In-the-Wild Personalization
by R. K. Jenamani, et al.
In *Robotics: Science & Systems (RSS), 2025*
Best Paper Award

Human-in-the-loop Contextual Bandits with Applications in Robot-Assisted Feeding
by R. Banerjee, R. K. Jenamani*, S. Vasudev*, A. Nanavati, S. Dean, T. Bhattacharjee
In *IEEE International Conference on Robotics and Automation (ICRA), 2025*
Finalist for Best Paper Award / Best Student Paper Award

An Adaptable, Safe, and Portable Robot-Assisted Feeding System
by E. K. Gordon*, R. K. Jenamani*, A. Nanavati*, et al.
In *Companion of ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2024*
Best Demo Award

Feel the Bite: Robot-Assisted Inside-Mouth Bite Transfer using Robust Mouth Perception and Phy-sical Interaction-Aware Control
by R. K. Jenamani, D. Stabile, Z. Liu, A. Anwar, K. Dimitropoulou, T. Bhattacharjee
In *ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2024*
Best Paper Award Honorable Mention

RCareWorld: A Human-centric Simulation World for Caregiving Robots
by R. Ye*, W. Xu*, H. Fu, R. K. Jenamani, V. Nguyen, C. Lu, K. Dimitropoulou and T. Bhattacharjee
In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2022*
Best RoboCup Paper Award Winner, Finalist for Best Paper Award / Best Student Paper Award

Optimal Multi-Agent Pathfinding for Non-Unit Edge Costs and Precedence Constrained Tasks
by R. K. Jenamani
B. Tech. Thesis - IIT Kharagpur
Best Undergraduate Thesis Award - CS, IIT Kharagpur

Teaching / Service

Physical Caregiving Robots Workshop, HRI 2025 - Organizer   caregivingrobots.github.io
Convened key stakeholders in physical caregiving robots–robotics researchers, care recipients, caregivers, and occupational therapists–to foster interdisciplinary collaborations. Launched a community newsletter.

Robot Manipulation 2024 - Teaching Assistant   cs.cornell.edu/courses/cs6751/2024sp
Prepared lectures materials, taught select sessions, organized and evaluated student presentations of representative papers in the field, and mentored ~20 students working in six teams on real robot projects.
Outstanding TA Award

Foundations of Robotics 2022 - Teaching Assistant   cs.cornell.edu/courses/cs5750/2022fa
Created and graded assignments on ROS, robot kinematics, state estimation, motion planning and feedback control for a class of about 100 students. Held weekly office hours.
Outstanding TA Award

SoNIC Workshop 2022 - Organizer   diversity.cis.cornell.edu/programs/sonic/
Organized the SoNIC Workshop with the aim to inspire underrepresented students to pursue graduate studies in STEM. Helped participants develop "smart canes" – assistive technology for the visually impaired.

PRESS

Robotic system feeds people with severe mobility limitations [Cornell Chronicle]
A team is developing robotic arms to feed people with spinal injuries [Interesting Engineering]
Novice roboticists find inspiration, community at SoNIC [Cornell Chronicle]
Caregiving robots at Cornell [Cornell Chronicle, Spectrum]
Caregiving simulator advances research in assistive robotics [TechXplore, Cornell Chronicle, Spectrum]