

Abhi.jpg



About Me.

I do Human-Robot Interaction research, being at the intersection of UX, research and engineering. I like to create and explore. I help discover ways that robots can solve problems for people as well as finding ways for robots and humans to have natural, intelligent, and enjoyable interactions.

Education.

● Oregon State University

MS in Robotics
2017 - 2019

● Indian Institute of Technology Patna

B. Tech in Mechanical Engineering
2013 - 2017

Skills.

UX research: Contextual inquiry, user interviews, usability studies, focus groups

Design: Adobe creative suite, sketching, figma, Solidworks, AutoCAD

Robotics/ML: ROS, Gazebo, Drake, OpenCV, PyTorch, Tensorflow

Programming: Python, C/C++, Javascript, HTML, CSS, NodeJS, Java, WebGL, Latex

Manufacturing: Rapid prototyping, Laser Cutting, Additive manufacturing

Interests.

Human robot interaction, Design of Social Robots & Robot Personality, Developing Personalized & Interactive Autonomous Systems

f1tenth: 1/10th scaled autonomous
f1cars - organizer and enthusiast



Music: playing, composing, production

Storytelling: sketching, video production

Outdoors: running, hiking, rowing

Misc.

HRI 2021 Accessibility co-chair.

HRI, RoMan, ICRA, CHI, ITSC reviewer.

Second Best Paper SIGCSE 2020.

HRI-Pioneer 2019.

Outstanding Undergraduate Thesis Award.

Conan O'Brien hosted me on

his podcast for ROBOTS!!



Work Experience.

Toyota Research Institute



June 2019 - Present

UX DEVELOPER I design, program and create prototypes that explore human robot interaction while working closely with other technical robotics subteams and collaborators. One of my active public projects is 'Punyo,' where we are trying to make a soft robot just like Baymax!

GoogleX Robotics



Summer 2018

UX RESEARCH INTERN Worked at Everyday Robots project, I developed software and designed robotic applications, worked on robot manipulation, and designed HRI experiments.

Stanford University



Summer 2016

UX RESEARCH INTERN Interactive Social Robots: Implemented autonomous and human-in-the-loop control of multiple robotic chairs and lamps, also analyzed expressivity of robot motor sounds. Grrr...!

New York University



Summer 2015

ROBOTICS INTERN Interactive Robotic Manipulator: Built a 3D vision-based feedback control system to recognize and localize objects in the environment.

Selected Publications + Patents.

Full list on scholar

“Input devices having a deformable membrane and methods of using the same”, US Patent. July 2022.

“How Does the General Population Understand Robot State?”, in International Conference on Human-Robot-Interaction (HRI). March 2021.

“Building Responsible Autonomous Systems at 1/10th-scale: A project based course and community”, in Technical Symposium on Computer Science Education (SIGCSE). March 2020.

“Distinguishing Robot Personality from Motion”, in International Conference on Human-Robot-Interaction (HRI). March 2020.

“Persuasive ChairBots: A (Mostly) Robot-Recruited Experiment”, in International Conference on Robot & Human Interactive Communication (ROMAN). Oct 2019.

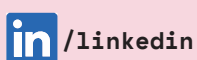
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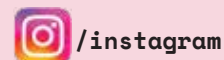
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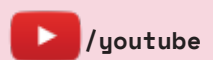
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