# Chidre Shravista Kashyap

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### Summary \_\_\_\_\_

I am a passionate robotics researcher with 1+ year of academic experience and devoted to delivering quality robotic applications for the industry and people. Reliable team player with a positive communication mode and possess the capacity to support the group in tackling technical glitches.

### **Education**

Doctor of Philosophy (PhD) in Cyber Physical Systems, Indian Institute of Science 2023-Present Advisor: Dr Jishnu Keshavan, Co-Advisor Dr Pushpak Jagtap Bengaluru

M.Tech in Mechanical Engineering, Defence Institute of Advanced Technology 2020-2022 Specialization: Robotics (8.53/10.00 GPA) Pune

Thesis: Vision-Aided Intelligent Manipulation and Control of Humanoid Robotic Arm

**B.Tech in Mechanical Engineering**, Maulana Azad National Institute of Technology 2015-2019 Thesis: Failure prediction of Pressure Vessels using Finite Element Analysis (6.90/10.00 GPA) **Bhopal** 

**Intermediate Public Examination (XII)** Sri Chaitanya Junior Kalasala (96.50%)

2013-2015 Hyderabad

SSC (X) Sri Chaitanya Techno School (9.5/10.0 GPA)

2013 Hyderabad



# Autonomous Logistics Technologies Pvt Ltd. (ALOG®)

Hyderabad

Internship

September 2022 - Current

- Deployed and troubleshot the autonomous mobile robot for smooth operation at a client location.
- Developed Safety features to meet international safety standards of AMR using several sensors to prevent collisions with obstacles.

#### **ISRO Inertial Systems Unit**

Project Student

Thiruvananthapuram July 2021 - May 2022

- Problem: Estimation of six degrees-of-freedom pose of the Humanoid Robotic Hand to track its position and orientation for effective manipulation with the aid of semantic segmentation and contour matching techniques.
- **Impact**: The accuracy of the method improvised to error of 0.8° in orientation and 6 mm in translation.
- Assisted the scientist in conducting several experiments and improved the accuracy of fiducial markerbased pose estimation through data-driven calibration methods by 15%.

## **Ezenith - Empowering Education**

DRONE Development Internship

BITS Pilani, Hyderabad May 2018 – July 2018

- The entire period got exposed to Drone Development leveraging Ardupilot and Mission Planner.
- Researched on Ornithopter, and compared the flight performance between fixed-wing aircraft and Ornithopter.



Programming Languages

**Softwares / Libraries** 

**Tools** 

**Certifications** 

MATLAB, Python, C++ (Basic)

SOLIDWORKS, ROS, Blender, Gazebo

Linux, RaspberryPi

Deep Learning Specialization (Coursera, 2022)

Robotics: Estimation and Learning (Coursera, 2021)

Robotics: Computational Motion Planning (Coursera, 2021)

ROS for Beginners path (The Construct, 2020)

# **♥** Projects \_\_\_\_\_

**RALS** – Robot Articulated Links Servo System.

January 2018 – Current

- Currently researching a robotic manipulator capable of picking up and placing objects with its adaptive grasping three-fingered gripper. Website: sites.google.com/view/rals-robotech/home

## Conferences / Publications \_\_\_\_\_\_

Shravista Kashyap, Jyothish M., "Calibration and error compensation of vision-based pose estimation of humanoid robot hand", in proceedings of National Conference on Artificial Intelligence Enabled Aerobots and Hydrobots (ASET 2022). https://bit.ly/3WTgXhp
March 17-18, 2022.

# Key Courses

- Robot Kinematics and Dynamics
- \* Robot Sensors, Actuators and Drives
- **❖** Automatic Control Systems
- Mathematics

## **≡** Extra-Curricular Activities

- ❖ Given a tutorial session on "Robot Modelling and URDF Export from SOLIDWORKS" at Defence Institute of Advanced Technology, Pune. February 4, 2022
- ❖ Student Volunteer at ACM/IEEE International Conference on Human-Robot Collaboration.

March 9-11, 2021

\* Rajbhasha Karyanvyan Samithi, Member.

2016 - 2017

- Led a 5-person team to conduct an event named Khichdi in Tooryanaad; a big Hindi festival held once every year and conducted a workshop for non – Hindi speaking students for about four weekends.
- ❖ Participation in Full Throttle Competition at IIT Bombay.

December 2015