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*
Bangaluru

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) *2013-2015*
Sri Chaitanya Junior Kalasala (*96.50%*) *Hyderabad*

SSC (X) *2013*
Sri Chaitanya Techno School (*9.5/10.0 GPA*) Hyderabad

Work Experience

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 Thiruvananthapuram
Project Student 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 marker-based pose estimation through data-driven calibration methods by *15%*.

Ezenith - Empowering Education BITS Pilani, Hyderabad
DRONE Development Internship 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.

Skills

Programming Languages	MATLAB, Python, C++ (Basic)
Softwares / Libraries	SOLIDWORKS, ROS, Blender, Gazebo
Tools	Linux, RaspberryPi
Certifications	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*