

BOLLIMUNTHA SHREYA

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Education

- Glendale Academy International School, Hyderabad, Grade 10** 2009 – 2019
 - CBSE Percentage - 96
- Sri Chaitanya Junior Kalasala, Hyderabad, Grade 12** 2019 – 2021
 - TSBIE Percentage - 96.8%
- International Institute of Information Technology, Hyderabad, B Tech and Master of Science in Electronics and Communication Engineering by Research** Nov 2021 – May 2026
 - CGPA - 8.65/10

Research

- Robotics Research Centre (RRC)**, *Advisors*: Dr. K. Madhava Krishna, Dr. Nagamanikandan Govindan
- Differentiable Optimization Plus RL**: Integrated differentiable kinematics model to guide RL in dual-arm tasks, reducing search space and enhancing efficiency.
- Non-Prehensile Object Transportation Framework**: Developing a reinforcement learning-based framework for the waiter's problem, focusing on non-prehensile object transportation across various contact interactions.
- Precog**, *Advisor*: Dr. Ponnuram Kummaraguru
- Worked on election expenditure through social media advertisements.
- Worked on Multimodal Online Toxicity with Knowledge-Infused Learning.

Publications

- DA-VIL: Adaptive Dual-Arm Manipulation with Reinforcement Learning and Variable Impedance Control** Sep 2024
Bollimuntha Shreya, Md Faizal Karim, Md Saad Hashmi, Autrio Das, Gaurav Singh, Srinath Sridhar, Arun Kumar Singh, Nagamanikandan Govindan, K Madhava Krishna
Accepted at International Conference on Robotics and Automation, 2025
- DG16M: A Large-Scale Dataset for Dual-Arm Grasping with Force-Optimized Grasps** March 2025
Md Faizal Karim, Md Saad Hashmi, *Bollimuntha Shreya*, Gaurav Singh, Nagamanikandan Govindan, K Madhava Krishna
Accepted at International Conference on Intelligent Robots and Systems, 2025

Experience

- Game Theory, CV and AI Team**
Computer Vision Intern
- Algorithm Development**: Designed and implemented machine learning algorithms for analyzing badminton matches and other computer vision-related tasks.
- Stripe, Verifications and Identity Platform**
Software Engineer Intern
- Developed Metric Anomaly Detection System for the Provider Platform Team.
- Signzy API Upgrades to the Production endpoint.

Projects

- Megathon - Social Media Analysis for Job Recruitment**: Led the development of an Android app utilizing Python for data extraction and NLP with a pre-trained BERT model. Analyzed social media activities to determine job suitability between tech and sales roles.
- Stereo Images to Point Cloud Generation and Localization**: Utilized geometric and deep learning-based methods for stereo matching, and developed efficient global point cloud generation from input point clouds per stereo pair.
- Elections Data - Classification and Analysis**: Developed classification models to predict the winning party in elections data. Achieved significant improvements in model accuracy, increasing from 62% to 74%.

Course Work

- Statistical Methods and Artificial Intelligence, Topics in Applied Optimization, Computer Vision, Probability and Random Processes, Behavioural Research and Statistical Methods, Data Structures and Algorithms

Responsibilities, Achievements

- Teaching Assistant for Real Analysis, Computer Programming and Basics of Ethics Course
- Music Club Overall Coordinator, Grade 7 Piano - Trinity College of Music London, Won inter-college music, swimming, and basketball competitions, E-Cell Marketing Team Head
- Team lead and Mission Control Officer for CanSat, USA in the world finals.