Pranay Reddy Anthireddy

(413) 435-0353 • pranayr@umass.edu
Github: pranay-ar — **Homepage**: pranay-ar.github.io — **LinkedIn**: pranay-ar

EDUCATION

University of Massachusetts Amherst Ongoing
- **Major:** MS, Computer Science *Expected May 2024*
- **Relevant Coursework:** Computer Vision, Distributed and Operating Systems, Machine Learning.

Indian Institute of Information Technology, Design and Manufacturing, Jabalpur GPA: 3.34/4
- **Major:** B.Tech, Electronics and Communication Engineering *July 2022*
- **Relevant Coursework:** Probability & Random Processes, Image Processing, Digital Watermarking, Signals & Systems, Fundamentals of Robotics, Computer Networks, Data Structures and Algorithms.

WORK AND RESEARCH EXPERIENCE

Carnegie Mellon University
Research Intern - Computer Vision *Sep '21 - Current*
- Working with **Dr. Chen Wang** and **Prof. Sebastian Scherer** at Airlab in Robotics Institute on Object Oriented Scene Recognition using Graph Neural Networks.
- Previously proposed a brand new few-shot object detection model free of fine-tuning and improved baseline by up to 60% (even higher than carefully fine-tuned models). Work has been **accepted at ECCV 2022**.

Indian School of Business, Hyderabad
Research Intern - Computer Vision *May '21 - Aug '22*
- Worked with **Dr. Sumeet Kumar** in finding product placements of various brands on YouTube-Kids videos.
- Generated three new datasets, established baseline and optimal accuracies for the product identification task and created the pipeline for end-to-end ad recognition.

PUBLICATIONS

[1] Bowen Li, Chen Wang, **Pranay Reddy**, Seungchan Kim, Sebastian Scherer, **"AirDet: Few-Shot Detection without Fine-tuning for Autonomous Exploration,"** (ECCV 2022, Accepted) [**Link**]

SKILLS

- **Frameworks and Libraries:** PyTorch, Tensorflow, OpenCV, Flask, Keras
- **Tools and Languages:** Python, C/C++, MATLAB, Git, Docker

PROJECTS

PyPose **[Link]**
Technologies: Python
- An open-source library that connects classical robotics methods with modern learning based approaches. Contributed towards Adj, euler2SO3 functions. Currently under review at ICRA 2023.

Catheter Positioning Tool **[Link]**
Technologies: Keras, TensorFlow
- A positioning tool created using Semantic Segmentation to identify the nerve structure in Ultrasound Images based on U-Net architecture with a dice coefficient of 75%.

Digital Grading of Fruits **[Link]**
Technologies: PyTorch
- Built a grader by extracting custom features using Image Processing techniques and trained them on Random Forest and various ML algorithms thereby achieving a validation accuracy of 99%.

VOLUNTEERING

- **Reviewer:** IEEE Robotics and Automation Letters (RA-L).
- **Project Assistant:** MAWE - An NGO focussed on empowering women entrepreneurs in India.
- **Coordinator:** Led the Literary and Quizzing Society at IIITDM Jabalpur.