

## Contact

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## Top Skills

Object Tracking

Robot Operating System (ROS)

Keras

## Honors-Awards

FY 2024 University of Kansas  
General Research Fund (GRF)  
Award

Best Presentation Award at IEEE  
UEMCON 2024 Conference.

## Publications

Enhanced Person Tracking with  
Metric-Based Learning and Diverse  
Detector Integration (DDI)

Real time Person Re-Identification  
using Deep Association Metric with  
Multiple Inputs

Advancing Person Re-Identification  
through Pose -Estimated Features

# Arnab Mukherjee

Ph.D. Candidate | Computer Vision & Deep Learning Researcher  
| Expertise in Object Detection, Image Segmentation, Vision  
Transformers | Python, PyTorch, TensorFlow  
Lawrence, Kansas, United States

## Summary

As a Ph.D. candidate in Computer Science at The University of Kansas, my work focuses on object detection, image segmentation, person tracking, and Vision Transformers. I thrive on developing AI models that push the boundaries of visual recognition, autonomous navigation, and real-world decision-making. Whether it's enhancing occlusion detection accuracy or optimizing deep learning algorithms, I am driven by the challenge of turning complex research into scalable AI solutions.

Throughout my career, I've led research projects that bridge theoretical advancements with real-world AI applications, publishing in peer-reviewed IEEE conferences and collaborating with industry leaders like Einstein AI. My projects include person re-identification, pose-estimation-based person tracking, and LiDAR-camera fusion for autonomous navigation. These contributions have been recognized with the FY 2024 General Research Fund (GRF) from KU and the Best Presentation Award at IEEE UEMCON 2024.

I am always looking for opportunities to collaborate on cutting-edge AI projects, tackle real-world challenges, and contribute to the next generation of intelligent vision systems. If you share the same enthusiasm for computer vision and deep learning, let's connect and explore how we can innovate together!

Let's build the future of AI-driven perception—one breakthrough at a time.

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## Experience

The University of Kansas  
Graduate Research And Teaching Assistant  
January 2022 - Present (3 years 6 months)

Lawrence, Kansas, United States

In my role as a Graduate Teaching Assistant at The University of Kansas, I played a pivotal role in guiding over 700 students through Software Engineering and Python courses. I provided hands-on mentorship, graded assignments, and proctored tests to ensure academic success. Additionally, I collaborated with the team to develop innovative course materials, enhancing the overall learning experience for students.

## Ainstein

### Algorithm Engineer

May 2023 - August 2023 (4 months)

Lawrence, Kansas, United States

- Designed and coordinated engineering tests and experiments for Ainstein in Lawrence, Kansas.
- Participated in failure analysis and debugging report activities to enhance product quality.
- Developed a 3D based Tracking Algorithm using Radar Point clouds for advanced tracking capabilities.
- Collaborated closely with engineers to test and improve the Ainstein AI O-79 product.

## National Taipei University of Technology

### Graduate Research Assistant

September 2019 - October 2021 (2 years 2 months)

Taipei, Taipei City, Taiwan

In my role as a Graduate Research Assistant at National Taipei University of Technology, I specialized in cutting-edge technologies such as real-time person counting using deep learning, person re-identification with custom datasets, and lidar camera fusion for self-driving vehicles. I contributed to enhancing surveillance applications and improving navigation systems for autonomous vehicles.

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## Education

### The University of Kansas

Doctor of Philosophy - PhD, Computer Science · (January 2022 - June 2025)

### National Taipei University of Technology

Master of Science - MS, Electrical Engineering and Computer Science · (2019 - 2021)

Silicon Institute of Technology (SIT), Bhubaneswar  
Bachelor of Technology - BTech, Electrical, Electronics and Communications  
Engineering · (2013 - 2017)