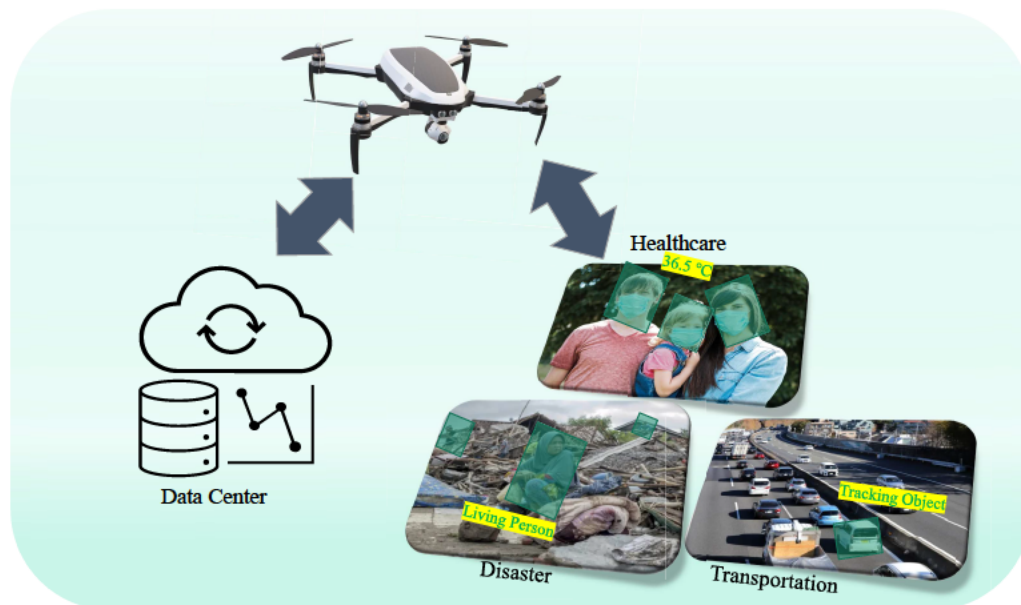


Implementation of Object Detection with Highly Energy-efficient Unmanned Aerial Vehicle

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The innovative technical revolution driven by artificial intelligence has brought a wide range of application areas for unmanned aerial vehicles (UAVs) in our daily life, ranging from security monitoring to entertainment photography. High-accuracy object detection is inevitably a fundamental technology building the highly civilized Internet of Things (IoT) society. Therefore, in this course, accurate object detection with low-cost UAVs will be realized by fusing a benchmark deep neural network algorithm. Let us explore the principles and challenges of accurate object detection with low-cost UAVs. During the study of this experiment, we can understand the following fundamental knowledge:

- Theory of deep neural networks for object detection
- Fundamental knowledge of Python programming
- Basic principle of UAVs' control



Conceptual diagram of UAV-based object detection



UAV-based object detection system