**Title:** Pedestrian Motion Detection   
  
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**Project Definition:** This project presents an implementation of an architecture for the detection of a human body using techniques of neural networking and deep learning, jointly called as a system of Artificial Neural Networking (ANN). The process at a high level is to use the concepts of development of the architecture, rule of activity and rule of learning.

The Caltech Pedestrian Dataset consists of approximately 10 hours of 640x480 30Hz video taken from a vehicle driving through regular traffic in an urban environment. About 250,000 frames (in 137 approximately minute long segments) with a total of 350,000 bounding boxes and 2300 unique pedestrians were annotated. [1]. The input is through a camera, which captures video and ANN in turn consumes this data and using the training data classifies and predicts the human posture and outputs the results by applying a rectangle on the human figure in the video. Pedestrian detection has been an important problem for decades, given its relevance to a number of applications in autonomous systems including driver assistance automobiles, road scene understanding, surveillance systems and search and rescue systems.

**Outcome:** Applying deep learning to identify people in a camera's image

[1]: P. Dollár, C. Wojek, B. Schiele and P. Perona Pedestrian Detection: An Evaluation of the State of the Art PAMI, 2012.

**Dataset:** The image data can be found in [http://www.vision.caltech.edu/Image\_Datasets/CaltechPedestrians/] [1]. The Caltech Pedestrian Dataset consists of approximately 10 hours of 640x480 30Hz video taken from a vehicle driving through regular traffic in an urban environment. About 250,000 frames (in 137 approximately minute long segments) with a total of 350,000 bounding boxes and 2300 unique pedestrians were annotated.