

CSci 343 Fundamentals of Data Science  
Challenge 4

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A Report  
Submitted to the Faculty of the  
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In Partial Fulfillment of the Requirements  
For CSci 343: Fundamentals of Data Science  
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## Camera Description

The assigned camera, named quadrangle<sup>1</sup>, for the user *generouslbex* is located in the university quad behind the library. Located in the right corner when facing the north entrance of the library. A great majority of the feed is covered by the green leaves coming out of the trees, with the pathways for pedestrians making their ways under the trees in the button and middle sections of the feed. In the center north part of the image we can observe the university chapel. Below the chapel we know the fountain is located, however it is not visible due to the trees covering it. In the top right corner we can observe the Johnson Commons, house of the Rebel Market, which entrances are not visible either. Finally above the Johnson Commons, we can observe a couple of other university buildings and the powder blue water tower.

## Hypothesis

1. The amount of movement in the leaves of the trees will depend on the wind during a certain period of time.
2. The pathways will present movement, however this movement might be minimal due to the temporality of the pedestrian movement.
3. No static human presence will be detected due to the lack of resting areas and time in between captures.

To further expand in the second and third points, in an hour we have 3600 second to uniformly take pictures during that time frame a picture will be taken every 12 seconds. Since pedestrian only use the quad to move from point A to B, without stopping due to the lack of resting points, the average pedestrian will appear twice in the images, and in opposite sides of the point before. So the place that will present more movement in the pathways will depend on which one is more common for pedestrians by increasing the probabilities of a specific point being registered. Also the main meeting/resting point from the camera, the fountain, is blocked by the trees which furthermore reduces a more constant human presence in a specific point.

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<sup>1</sup> Link: <http://livecam.olemiss.edu/quadrangle/>