1. Project Number: S19-48

2. Project Title (as it will appear on the poster):
   Name: Spots (Parking Application)

3. Team Members:
   Kyle Abed
   Salvatore Maiorana
   Jose Armas

4. Adviser(s) name(s):
   Wade Trappe

5. Up to 5 keywords that will help to classify the project scope:
   Innovative
   Efficient
   Reliable
   Simplistic
   Specialized

6. Project abstract (up to 250 words) to be shared with judges:
   Are you tired of driving up and down each aisle in a crowded parking lot just to find an open spot? Introducing Spots, an application where parking can be done the right way. Spots is an application that will give users a bird’s-eye view of a parking lot (they select) that displays every spot and whether each spot is open or occupied, all in real time. Additionally, users will be able to see the total occupancy level of the lot and benefit from the other features Spots has to offer. The application uses camera(s) attached to Raspberry Pi(s) that oversees the parking lot and analyzes each frame using "object detection" technology that determines that status.
(open/occupied) of each spot. From there, the data is pushed to a cloud server that is connected to the user-facing application. Finally, the data is analyzed a second time (this time within the application) and the user is now able to interact with the GUI to display the appropriate information. This solution provides a more efficient way to park. Running late to class/work and don’t have the time drive down each aisle? Instead of parking in an unauthorized lot and getting a ticket, our app will be able to let you know if there are any spots open AND where those spots are. Let’s change the way we park.