# Introduction to Artificial Intelligence HW 1 Report

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# 1  Code and Explanation

Code 1: Part 1 (`datasets.py`)

```python
import os
import cv2
import numpy as np
def loadImages(dataPath):
    """
    Load all Images in the folder and transfer a list of tuples.
    The first element is the numpy array of shape (m, n) representing the image.
    (remember to resize and convert the parking space images to 36 x 16
    grayscale images.)
    The second element is its classification (1 or 0)
        Parameters:
        dataPath: The folder path.
        Returns:
        dataset: The list of tuples.
    """
    # Begin your code (Part 1)
    dataset = []
```

```
17    for item in os.listdir(os.path.join(dataPath, "car")):
18        img = cv2.imread(os.path.join(dataPath, "car", item))
19        img = cv2.resize(img, (36, 16))
20        img = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
21        data = (img, 1)
22        dataset.append(data)
23
24    for item in os.listdir(os.path.join(dataPath, "non-car")):
25        img = cv2.imread(os.path.join(dataPath, "non-car", item))
26        img = cv2.resize(img, (36, 16))
27        img = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
28        data = (img, 0)
29        dataset.append(data)
30    # End your code (Part 1)
31
32    return dataset
```

# 2 Results

# 3 Problems

## 3.1 The Performance of My Model is really bad