American International University Bangladesh (AIUB)



Assignment

Course Tittle: Computer Vision and Pattern Recognition

Department of Computer Science

Name

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Submitted To
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Associate Professor

Code:

```
... @@ -0,0 +1,73 @@
1 + {
     2 + "cells": [
      3 + {
      4 + "cell_type": "code",
      5 + "execution_count": 2,
      6 + "id": "01e7c191",
       7 + "metadata": {},
       8 + "outputs": [
      9 + {
      10 + "data": {
      11 +
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      12 +
              "text/plain": [
      13 +
                "<Figure size 432x288 with 1 Axes>"
      14 +
               ]
      15 +
             },
      16 +
              "metadata": {
   "needs_background": "light"
      17 +
      18 +
              },
      19 +
               "output_type": "display_data"
      20 + }
      21 +
              1,
      22 +
              "source": [
      23 + "import matplotlib.pyplot as plt\n",
      24 + "import random\n",
      25 + "import math\n",
      26 + "import pandas as pd\n",
```

```
27 + "\n",
28 +
       "\n",
29 +
         "df = pd.read_csv('data.csv')\n",
30 + "df.head()\n",
31 +
       "\n",
32 + "X1 = df[\"X\"].values.tolist()\n",
33 + "X2 = df[\"Y\"].values.tolist()\n",
34 + "Y = df[\"LABEL\"].values.tolist()\n",
35 +
         "# print(f\"{X1},{X2}={Y}\") for testing input\n",
36 +
         "for i in range(len(Y)):\n",
37 + " if Y[i] == 0:\n",
38 + " plt.plot(X1[i], X2[i], \"r+\")\n",
39 + " else:\n",
40 + "
             plt.plot(X1[i], X2[i], \"g+\")"
41 + ]
42 + },
43 + {
44 +
        "cell_type": "code",
45 + "execution_count": null,
46 + "id": "08ea5cdd",
47 + "metadata": {},
48 + "outputs": [],
49 + "source": []
50 + }
51 + ],
52 + "metadata": {
53 + "kernelspec": {
54 + "display_name": "cvpr tf2.4 py3.8",
55 + "language": "python",
56 + "name": "cvpr"
57 + },
```

```
58 + "language_info": {
59 + "codemirror_mode": {
60 +
      "name": "ipython",
61 +
      "version": 3
62 +
      },
63 +
      "file_extension": ".py",
64 +
      "mimetype": "text/x-python",
65 +
      "name": "python",
66 + "nbconvert_exporter": "python",
67 + "pygments_lexer": "ipython3",
68 + "version": "3.8.12"
69 + }
70 + },
71 + "nbformat": 4,
72 + "nbformat_minor": 5
73 + }
```

Output:

```
✓ 50 ■■■■■ data.csv 🖵
                                                                                                              ...
... @@ -0,0 +1,50 @@
1 + X,Y,LABEL
     2 + 78,95,0
     3 + 17,22,1
      4 + 70,98,0
      5 + 57,99,0
      6 + 4,95,1
      7 + 49,62,1
      8 + 24,34,1
      9 + 75,81,0
     10 + 5,21,1
     11 + 66,71,0
     12 + 20,16,1
     13 + 84,18,0
     14 + 64,63,0
     15 + 65,26,0
     16 + 61,88,0
      17 + 14,1,1
      18 + 30,52,1
      19 + 35,34,1
      20 + 26,10,1
```

```
21 + 63,64,0
22 + 10,22,1
23 + 84,38,0
24 + 53,5,0
 25 + 39,12,1
 26 + 62,28,0
 27 + 90,12,0
 28 + 81,41,0
29 + 35,44,1
30 + 80,48,0
31 + 55,57,0
32 + 91,50,0
33 + 87,87,0
34 + 91,99,0
35 + 66,60,0
36 + 20,11,1
37 + 24,64,1
38 + 2,85,1
39 + 67,34,0
 40 + 6,12,1
 41 + 78,80,0
 42 + 90,12,0
 43 + 53,39,0
 44 + 99,58,0
 45 + 28,73,1
 46 + 87,93,0
 47 + 12,100,1
48 + 1,6,1
 49 + 98,19,0
```

```
21 + 63,64,0
22 + 10,22,1
23 + 84,38,0
24 + 53,5,0
25 + 39,12,1
26 + 62,28,0
27 + 90,12,0
28 + 81,41,0
29 + 35,44,1
 30 + 80,48,0
 31 + 55,57,0
 32 + 91,50,0
 33 + 87,87,0
 34 + 91,99,0
 35 + 66,60,0
 36 + 20,11,1
37 + 24,64,1
38 + 2,85,1
39 + 67,34,0
40 + 6,12,1
41 + 78,80,0
42 + 90,12,0
43 + 53,39,0
 44 + 99,58,0
 45 + 28,73,1
 46 + 87,93,0
 47 + 12,100,1
 48 + 1,6,1
 49 + 98,19,0
  50 + 51,49,0
```