

American International University Bangladesh (AIUB)



Assignment

Course Title: 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 @@
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3 +     {
4 +       "cell_type": "code",
5 +       "execution_count": 2,
6 +       "id": "01e7c191",
7 +       "metadata": {},
8 +       "outputs": [
9 +         {
10 +          "data": {
11 +            "image/png": "iVBORw0KGgoAAAANSUhEUgAAAXcAAAD4CAYAAAXUaZHA AAAOXRFWHRTb2Z0d2FyZQBNYXRwbG90bG11IHZ1cnNpb24zLjQuMywgHR0cHM6Ly9tYX
12 +            "text/plain": [
13 +              "<Figure size 432x288 with 1 Axes>"
14 +            ]
15 +          },
16 +          "metadata": {
17 +            "needs_background": "light"
18 +          },
19 +          "output_type": "display_data"
20 +        }
21 +      ],
22 +      "source": [
23 +        "import matplotlib.pyplot as plt\n",
24 +        "import random\n",
25 +        "import math\n",
26 +        "import pandas as pd\n",
27 +
28 +        "\n",
29 +        "df = pd.read_csv('data.csv')\n",
30 +        "df.head()\n",
31 +
32 +        "\n",
33 +        "X1 = df[\"X\"].values.tolist()\n",
34 +        "X2 = df[\"Y\"].values.tolist()\n",
35 +        "Y = df[\"LABEL\"].values.tolist()\n",
36 +        "# print(f\"{X1},{X2}={Y}\") for testing input\n",
37 +        "for i in range(len(Y)):\n",
38 +            "    if Y[i] == 0:\n",
39 +                "        plt.plot(X1[i], X2[i], \"r+\")\n",
40 +            "    else:\n",
41 +                "        plt.plot(X1[i], X2[i], \"g+\")\n",
42 +        ]
43 +     },
44 +     {
45 +       "cell_type": "code",
46 +       "execution_count": null,
47 +       "id": "08ea5cdd",
48 +       "metadata": {},
49 +       "outputs": [],
50 +       "source": []
51 +     }
52 +   ],
53 +   "metadata": {
54 +     "kernel_spec": {
55 +       "display_name": "cvpr tf2.4 py3.8",
56 +       "language": "python",
57 +       "name": "cvpr"
```

```
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