Week 1 Update

Shriyadita Medavaram

About Me

- BS Mechanical Engineering at Virginia Tech
- Rising Junior
- Experience:
  - Astrobotics at Virginia Tech – Manipulator Team Lead
  - ISAME Research Group – 3D Printing in outer space
    - Papers not publicly available, but exist
  - Exploring environmental legislature using LLMs



Assignment 1





















Assignment 1

Index	True Label	Top 1 Prediction	Top 1 Probability	Top 2 Prediction	Top 2 Probability	Top 3 Prediction	Top 3 Probability
0	Bunny	hare	40.19	wood rabbit, cottontail, cottontail rabbit	34.50	Angora, Angora rabbit	24.41
1	Petunia	pot, flowerpot	12.58	pole	0.82	greenhouse, nursery, glasshouse	0.79
2	Calico Cat	Egyptian cat	73.66	tiger cat	10.21	tabby, tabby cat	6.56
3	Waterfall	valley, vale	54.00	dam, dike, dyke	33.17	lakeside, lakeshore	4.90
4	Door	doormat, welcome mat	82.85	pot, flowerpot	2.26	window screen	1.68
5	Computer	notebook, notebook computer	84.27	laptop, laptop computer	6.74	space bar	3.39
6	Deer	gazelle	46.02	impala, Aepyceros melampus	16.06	hartebeest	1.60
7	Moon	planetarium	4.37	space shuttle	2.44	golf ball	2.12
8	Chair	folding chair	53.36	rocking chair, rocker	16.01	dining table, board	1.88
9	Peacock	peacock	99.93	ostrich, Struthio camelus	0.00	cock	0.00

Assignment 1

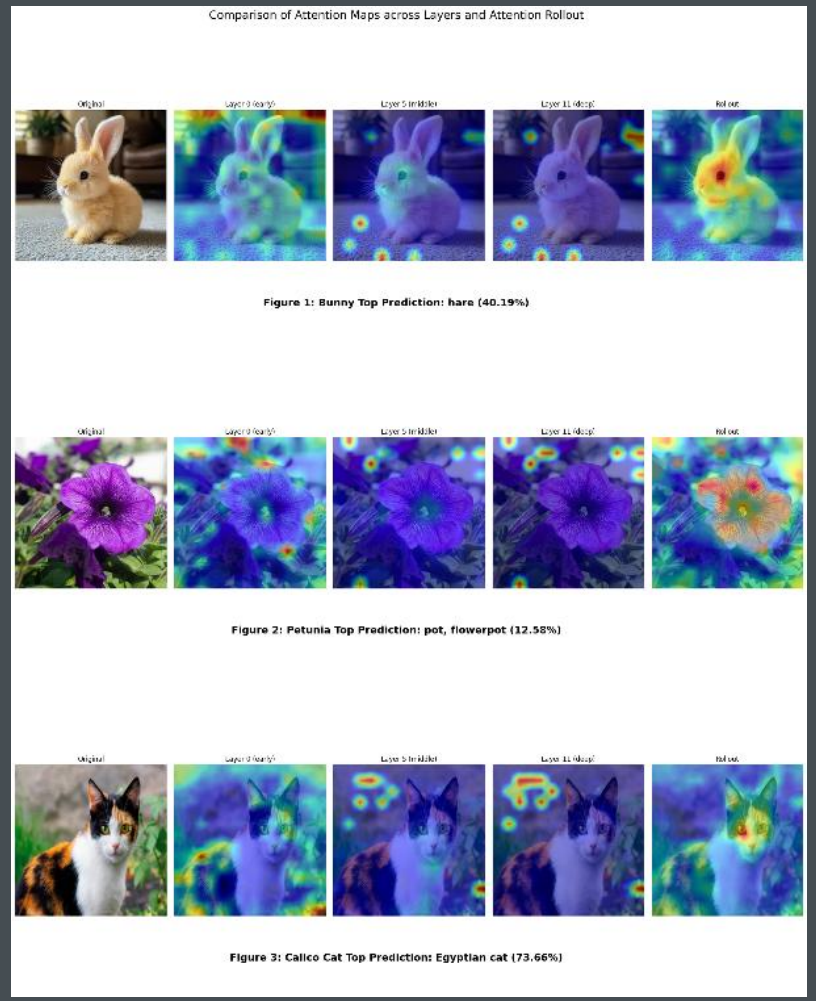


Figure 1: Bunny Top Prediction: hare (40.19%)

Figure 2: Petunia Top Prediction: pot, flowerpot (12.58%)

Figure 3: Calico Cat Top Prediction: Egyptian cat (73.66%)

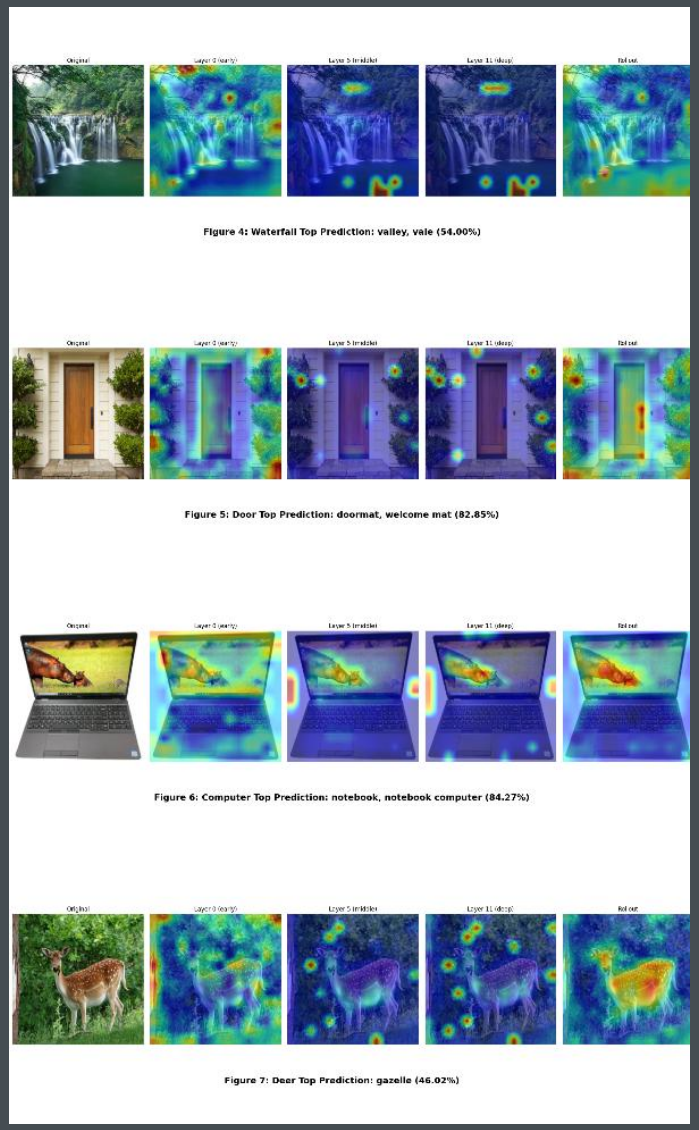


Figure 4: Waterfall Top Prediction: valley, vale (54.00%)

Figure 5: Door Top Prediction: doormat, welcome mat (82.85%)

Figure 6: Computer Top Prediction: notebook, notebook computer (84.27%)

Figure 7: Deer Top Prediction: gazelle (46.02%)

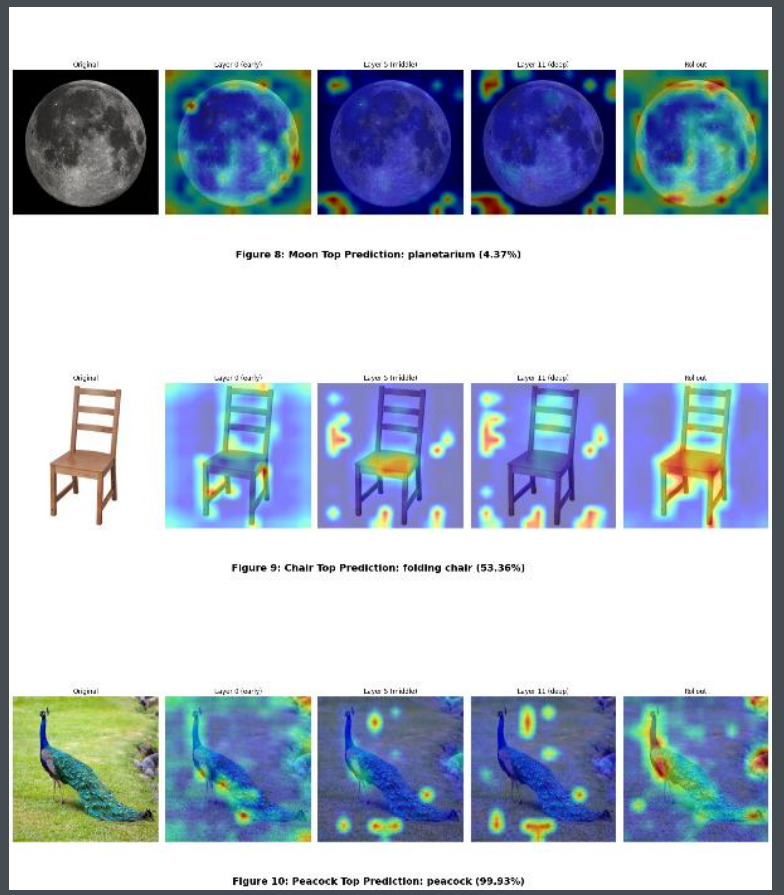


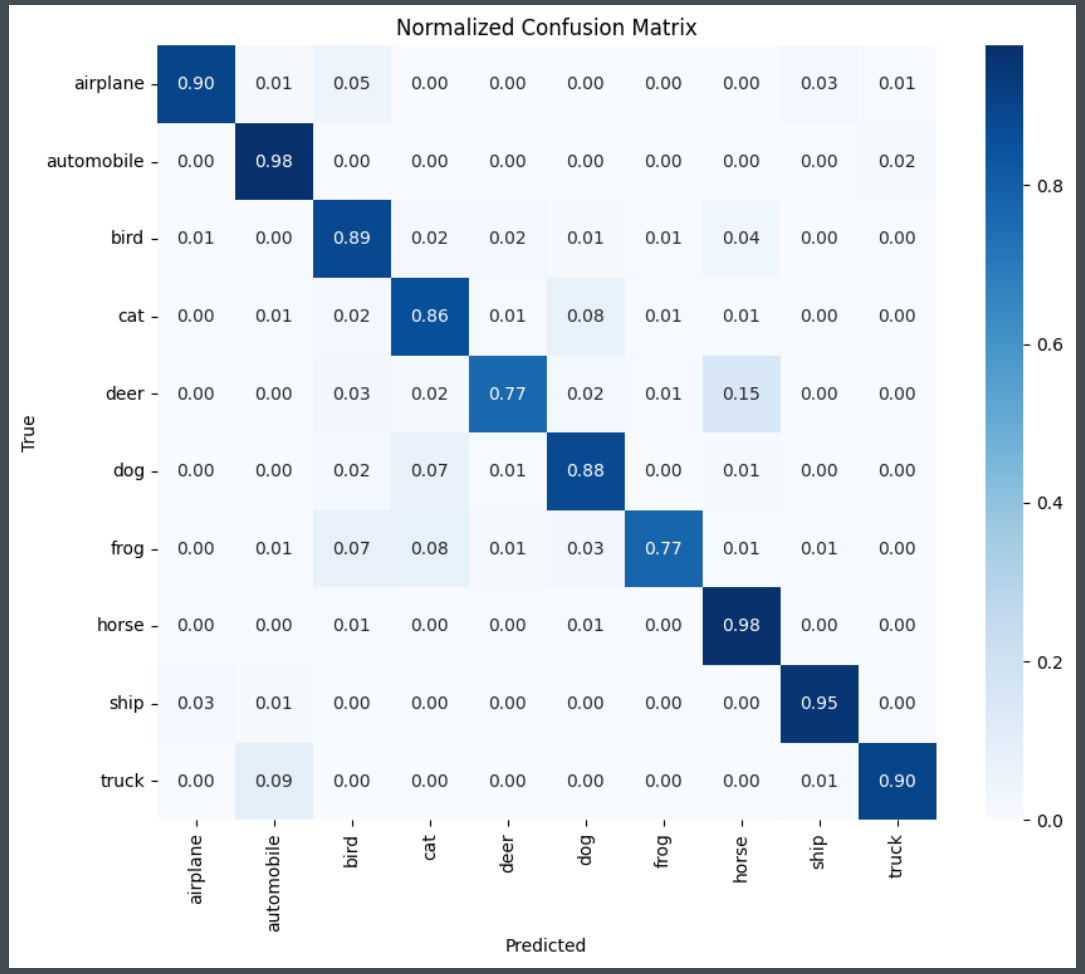
Figure 8: Moon Top Prediction: planetarium (4.37%)

Figure 9: Chair Top Prediction: folding chair (53.36%)

Figure 10: Peacock Top Prediction: peacock (99.93%)

Assignment 2

Class	Accuracy (%)
Airplane	90.1
Automobile	97.6
Bird	88.8
Cat	86.0
Deer	76.5
Dog	88.4
Frog	77.4
Horse	97.6
Ship	95.5
Truck	88.8



Next Steps

- Fix Assignment 2
- Focus on starting implementable code for research project
    - Given Github – must figure it out