DSC 180 A01 - EXPLAINABLE AI DISCUSSION 2: SALIENCY MAPS

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ANNOUNCEMENTS

- Instructor's office hour:
  - Tuesdays 3-4pm on Zoom (for link see Piazza staff directory)
- Attendance in discussion is required per course design
  - Discussions will no longer be recorded
- Don't forget:
  - Each week, submit your answers to the questions with your participation submission to Canvas

THIS WEEK'S ASSIGNMENT

Reading

- The concept of saliency maps is going to be crucial to understand our replication paper.

- To get up to speed on these concepts, read the paper:
  - Deep Inside Convolutional Networks: Visualising Image Classification Models and Saliency Maps

Questions

- What is a saliency map?

- How is the saliency map obtained?

- What can a saliency map be used for?

- Which image data base did the authors of the paper use for training and inference?

ANSWERS

- What is a saliency map?
  - A grayscale image in which each pixel's brightness indicates the importance the pixel had for object recognition
- How is the saliency map obtained?
  - By finding the image derivative through backpropagation
- What can a saliency map be used for?
  - Image segmentation
- Which image data base did the paper use?
  - Large Scale Visual Recognition Challenge 2013 (ILSVRC2013)

TASKS FOR NEXT WEEK

Reading

- Browse the COCO dataset website and read the paper.

Programming

- Download the COCO API and get the Python API to work
- Run the demo: cocoapi/PythonAPI/pycocoDemo.ipynb

Participation Assignment

- Answer the following questions:
    1. What does the COCO dataset consist of?
    2. What does the Python API demo do?
    3. Which were the biggest problems your team had to solve to get the demo to work?

OTHER DISCUSSION TOPICS

- DSMLP Cluster
  - Do you have access yet?
  - Who has already used it?
  - COCO data should already be installed
- Team forming status
- …