



# DSC 180 A01 - EXPLAINABLE AI DISCUSSION 4: GRAD-CAM

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# ANNOUNCEMENTS

- Instructor's office hour:
  - Fridays 10am
  - [Zoom link on Piazza](#)
- Reminder:
  - Each Tuesday morning, submit your answers to the questions with your participation submission to Canvas

# TASKS FOR THIS WEEK

## **Reading (due Tuesday at noon)**

- Watch the video and read the detailed explanation of the COCO dataset at <https://www.immersivelimit.com/tutorials/create-coco-annotations-from-scratch>

## **Programming for Checkpoint 1 (due next Friday)**

- Modify the demo to create your own that is different than the default demo (due

## **Participation Assignment (due Tuesday at noon)**

- What does your COCO demo do differently than the default demo?
- Show a sample output of your demo (can be a mock-up of what you want it to be)

# THIS WEEK'S ASSIGNMENT

## 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?

# TASKS FOR WEEK 5

## Reading

- Read [this web page](#) up to and including section "What is Gradient-weighted Class Activation Mapping (Grad-CAM) and why would we use it?"
- Read [this web page](#) (also referenced by the article above) in its entirety, including section "Implementation of Grad Cam Using Keras". Try to follow along the coding example without actually implementing it.

## Participation Assignment (due November 3rd at noon)

Answer the following questions:

- What is Grad-CAM and why would you use it?
- What information does Grad-CAM give the developer or user of a machine learning system that is not otherwise available to those users?