CRCV HSAP Presentation

November 3, 2020- November 17, 2020
What I have Done

- Continued with Data Collection– sorted and entered YouTube IDs, dates, and uploader names into Excel spreadsheet– collected a total around 250 videos
  - Collected Ground and Aerial Videos for Atlanta, Auckland, Baltimore, Bangalore, and Belgrade (10 ground videos, 10 aerial videos per city)
Datasets usually only have a standard number of variations, which is not consistent with real world complexities.

BDD100k is the largest driving video dataset with 100k videos and 10 tasks--evaluate image recognition, autonomous driving (lots of variations like weather and environmental diversity).

Most deep learning models require lots of training in order to achieve high accuracy, but for autonomous driving these models are not as simple and tend to overfit domain characteristics.

Visual Datasets--important for recognition tasks in computer vision, needed for high level image representations, proposed dataset provides these multi-granularity annotations for more in-depth visual reasoning.
Driving Datasets-- more popular because of increased attention to autonomous vehicles, understand the complexity of computer vision as it pertains to self-driving cars (could focus on pedestrians and obstructing objects)

Multitask Learning-- helps with the problem of overfitting by learning from certain tasks
  ○ Robust Vision Challenge [1] features six vision challenges, where a single model is expected to produce results on multiple vision tasks.

BDD100K contains diverse scene types such as city streets, residential areas, and highway-- training (70K), validation (10K) and testing (20K) sets
Thank you!
Any Questions?