Meeting notes and assignment: Week 2

Thanks to every team who submitted and reviewed proposals for a project last week! The first week was fantastic, kudos to you guys!!

When researchers build a system, it's very uncommon for them to complete everything from scratch. You might have noticed this when reading papers to prepare last week's proposal: a typical vision paper might combine a new approach with an old algorithm using an old dataset and using some old evaluation metrics. Most of the time, there's a huge opportunity for sharing work or reusing different parts. *Reuse amplifies the researcher's power*. There's little merit into writing something completely by oneself: if another researcher already created some part that you need, why write it from scratch?

We think that many of these proposals could benefit from the same kind of collaboration. We found the proposals to be strongly focused on two types of areas:

1-> **foundation building blocks** ("object detector," "recognizer," "image segmentation") and
2-> **applications** ("....for wildlife surveys!", "...for license plates!", "...for historical manuscripts!", "...for household robots!").

Perhaps this implies a natural split of work: several "**building blocks**"-focused teams could look more deeply at various abstract areas of computer vision and could generate tools and algorithms that are useful for different tasks, and several "**applications**"-focused teams could evaluate those tools on different datasets, benchmarks, and evaluation metrics.

Both kinds of teams compliment each other: an algorithm needs a dataset/evaluation strategy to test it, but each area of computer vision needs comparisons of several different algorithms.

Assignment: Do the following and write a report addressing these in 1 to 2 pages.

- This week, **read some other student reports** posted to Piazza. Then, **pick an application to look at** for one week. This could be your application from last week, it could be an application from another group, or it could be something new.
- For your chosen application, **find the building blocks**. What kinds of computer vision tools are needed to build this system? Object detectors? Classifiers? Regression?
- **What other applications can use these building blocks**? Are there any other student teams who could benefit from the common elements you describe? Find some other student teams on Piazza and briefly explain how their project could potentially benefit.

- **[Optional, but ideal] Do your building blocks fit with our research question**? Can each building block can be helped by HPU/human workers/crowdsourcing in some way? Is there a sample data set that could be used to test each building block?

When you find a potential collaboration point, you may want to **start or contribute to a discussion on Piazza** and try to contact other teams that are also interested in your areas. Don't be shy, Piazza is YOUR forum, be expressive and we encourage you to use it as your primary communication channel between us and other teams.