FourthBrain

Student Project Proposal

Project Title	Detecting and de-warping whiteboard
Industry Sponsorship (if Any)	None

Project Description

Problem definition
[50-100 word description of the problem which you will solve]

In the meeting rooms we often have a white board. In the video conference settings we want to be able to present the whiteboard to the video conferenceing audience.

White board can be at an angle with regards to the camera so in additon to detecting it we want to de-warp it i.e. correct for distortion due to an angle at which the white board is visible to the camera. We can also apply filtering like contrast enhancement.

My main audience will be in the business setting during video conferencing

My business measure of success is a manufacturer of web cameras for video conferencing startingt to use this model in the device on a separate stream called whiteboard. On the technical side my measure of success is ability to detect and dewarp white board succesfully in 80% of cases.

Key Research Questions/ Technological constraints that the Project will Answer

Final deliverables at the end of the project
[Please list the desired technical deliverables from the project team in as much detail as possible]

Key activities/ technologies the project team may be expected to undertake/ work with
[E.g. What kind of technology stack will you work with, the datasets you may need to work on, what kind of analysis you may be expected to undertake, etc.]

Expected learning outcomes
[What do you expect to learn from the project? Please mention the technical skills you will imbibe over the project.]

Team Size:	1
Member names:	Dragan Ostojic

Tentative Time plan

Submit a tentative time plan (table/chart or text) regarding breakdown of the work that will be conducted between in the second half of your cohort, from week 6 onward.

System Design

From the System design perspective, outline the following:

- Data
- Process (Models, iterations)
- Outcome (output and recommendations)

What are the system design considerations for your deployable ML model? Describe the iterations, delivery formats and limitations you may face and some solutions to overcome the limitations

- Should the model be deployed to run in batch, or to be hit from an api or some sort of streaming process as events are generated?
- What sort of infrastructure will be required for training? If it is a model that requires a lot of resources, where is the best place to train?

Ethical Considerations

Are there any ethical considerations of your project? Consider the data source, the intended outcome, and/or the eventual use cases.

- Did you modify anything about your plan based on these considerations?
- Can you anticipate any issues that might arise during the process?