

# Workshops in Creative Computing 2: Mobile Computing and Computer Vision

## Assignment 2/2: Computer Vision Project

Parag K. Mital

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### **Introduction**

Your assignment will be to work in groups over the next 6 weeks to create the basic implementation of an artwork, creative application, or game that uses computer vision as the primary means of interaction. It could take any form. For example, you could develop an installation which you video document or present live. You could present a live performance interface or a game which is similarly documented via video, website, or presented live. The choice is up to you.

### **Assessed Submissions**

#### **Initial Group Summary**

You should have an idea ready for discussion in the lab on March 13th. By midnight on the 20th of March, you should send me one e-mail per group (3-5 people; yes you have to be in a group) with each of your first and last names and a 300 word summary of what you plan to present. Please e-mail me at [parag@pkmital.com] and use the subject: “WCC2: Computer Vision Project Initial Group Summary”.

#### **Group**

Your group presentation can be a video, a live presentation, a website, or an installation. In any case, you must faithfully represent the experience of “being there”. For instance, you could show your finished work as a 10 minute presentation. It could be a website which faithfully recreates the experience of “being there” with video embeds that show some other aspect of the interaction.

Please decide on the format of your submission and make this known to me by the 20th of March. If a documented video or website, be sure to include all the documentation required for understanding your work. These should stand on their own and be understood well enough for me to mark your project. If a presentation, be sure to have thought out exactly what/where/how you will present and organize it as though it were an art critic or gallery presentation. I will also book a lecture theater for the 23rd of April where those that submit videos will be presented, and those that require a live presentation can present their work.

## Individual

You should also individually e-mail me 800-1000 word article of your work by midnight on the 23rd of April. When you e-mail this document, please use the subject: "WCC2: Computer Vision Project Individual Submission" so that I can find your submission. Late submissions will be penalized 10% per day. Your document should be formatted as such:

- **First and Last Name**
- **Project Title**
- **First and Last names of the other group members**
- **Context/motivation** for the project
- **Related work** and other artists/projects that have done similar things
- **Methods** of your work such as programming snippets or interaction required to make the project work
- **Results** in what your methods were able to produce
- **Discussion** of what went wrong/right and how you would change your methods in the future. You should also state whether you feel the contribution amongst team members was roughly equal in which case marks will be allocated equally, or whether any team members contributed significantly more or less.

If your document is not at least 800 words, you have likely forgotten to explain something and should consider what you have written more carefully. Be sure to include visual documentation when necessary. If you require a different structure than the above, you are free to do so. However, keep in mind that the aforementioned basic elements should still be explained somehow. I would suggest you start thinking about the context of your project and start to write this section and the related work by the 20th of March when you will discuss with me what you would like to do. This will help you develop a strong idea for your project.

If your group would like to be assessed equally and have agreed to send the same individual document, then you are free to do so. In this case, please still send a document for each team member with your name on top.

## Grading Criteria

You will be given a mark for your individual submission and your group work. These will be weighted equally in deciding your final grade. I will follow the scheme below which focuses on (1) how you made use of the components taught during the computer vision course, (2) a novel aspect of those components showing going above and beyond what was taught, (3) the aesthetics of the presentation, and (4) the conceptual framing of the project. Essentially, higher marks will go to work that demonstrates independent research and innovation beyond what is directly taught in the course. This includes technical innovation (using techniques not directly taught in the course) and creative innovation (innovative use of the methods taught in the course). If it is clear from your individual reports that the work of the project was not spread evenly, individuals in the group will receive adjusted versions of the mark reflecting their contribution.

Marks will be allocated according to this scheme:

- 0-49% **Fail** Non-submission; cheating; poor effort
- 50-59% **Pass** Successful implementation of an artwork, game, or other computer vision-based experience based on the techniques and concepts taught in the course, with some flaws
- 60-69% **Merit** A highly polished implementation using the more advanced techniques and concepts taught in the course and/or some innovation beyond what is taught in the course, but containing flaws
- 70-79% **Distinction** A piece of work that displays research and/or innovation beyond what is taught in the course in terms of either the technical implementation or creative concept
- 80-100% **Exceptional Work** that goes considerably beyond the scope of the research to the production or highly professional piece of creative and technical work which uses state of the art research within the work

## Timeline

- 6 March: Project assigned.
- 13 March: Ready for initial discussion of your project during the lab.
- 20 March: Another discussion of your project during the lab. E-mail [parag@pkmital.com] by midnight with 300 word summary of your group's proposed project and its team members. For your e-mail, use the subject: "WCC2: Computer Vision Project Initial Group Summary".
- 23 April: Final group presentations. Those handing in videos or a website must submit them by Noon. For websites, I will open a browser with your website at Noon. Others should present their work on the 23rd in the lecture theater I will book. You should also submit your final individual submission (PDF). When you e-mail this document, please use the subject: "WCC2: Computer Vision Project Individual Submission" so that I can

find your submission. Refer to the above sections and make sure you include everything I've asked for or you will lose marks.