CS 6384 Computer Vision Project Presentation and Final Report

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1 Presentation

The project presentations will be on 5/1 and 5/3. The assignments of the groups are

- 5/1, Monday, Groups: 2, 3, 5, 6, 7, 8, 9, 10, 11
- 5/3, Wednesday, Groups: 12, 13, 14, 15, 16, 17, 18, 19

The list of projects:

- Group 2: Lane and Obstacle Detection for Autonomous Vehicles
- Group 3: Human Pose Estimation based Posture Corrector
- Group 5: Mask Detection and Social Distance Evaluation with Live Stream
- Group 6: Image Search Engine
- Group 7: Hand Gesture Recognition for Interaction with Computers
- Group 8: Verification of Identity using Triplet Network
- Group 9: Memento: Object Detection and Tracking for Memory Recall
- Group 10: Vehicle Detection, Classification and Counting
- Group 11: Human Movement Analysis for Sports Performance Evaluation
- Group 12: Create Video Clips by Frame Interpolations
- Group 13: Itemization of Receipts using Computer Vision Techniques
- Group 14: Real-time Alertness assessment using CNN and Viola-Jones Algorithm
- Group 15: Parking Spot Detection
- Group 16: Yoga Master
- Group 17: ZEN: A Cross-architecture Generalizable Dataset Distillation Approach

- Group 18: NaviVision: A Navigation Tool for Blind Individuals
- Group 19: Learning Based 3D Representation and Rendering

Each group has 8 minutes for the presentation and questions. Please use slides to describe your project, and show a demo of the project if you have one.

Make sure you practice your presentation beforehand. A timer will be used. You will have to stop the presentation if you run over 8 minutes.

Evaluation criteria: The grading will be based on the overall quality of the presentation in terms of content, clarity, and question answering.

2 Final Report

The project final report should be prepared using the CVPR latex template. A useful online LaTex tool is Overleaf `https://www.overleaf.com/`. We have the CVPR latex template accessible here via overleaf: `https://www.overleaf.com/read/gpjssbtrrpqm`. You can download a copy of the template or make a copy in overleaf for your own project, and then edit it.

In this project final report, please describe the following items according to your project:

- **Title**. The title of your project.
- **Team Members**. List the names of the team members.
- **Abstract**. Give an overview of the project.
- **Introduction**. Describe the motivation of the project, i.e., why do you want to work on this problem. Then describe an overview of the framework/method/system.
- **Related Work**. Discuss the related work of your project.
- **Method**. Describe your solution for the project. For example, describe each component of the framework in details. Try to use figures to illustrate the method instead of only using text. "A picture is worth a thousand words".
- **Experiments**. In this section, you can first describe the datasets and evaluation metrics. Then describe what experiments you have done for the project by adding experimental results to the report. You can use figures and plots to show these results.
- **Conclusion**. Describe the take-home messages of the project and conclude the report.
- **References**. Cite related works in the report.

Evaluation criteria: The grading will be based on the overall quality of the report in terms of writing, content and clarity.

Minimum page requirement: 4 pages. The report should be at least 4 pages with the CVPR format (excluding references, i.e., without references, the content should be at least 4 pages). You can go beyond 4 pages, but make sure it is less than 6 pages (excluding references).

An example CVPR paper: you can check the structure of the following paper for reference `https://yuxng.github.io/zhu_cvpr21.pdf`.

3 Project Submission

Please submit the following items to eLearning. You can zip all the files.

- (Required) Final report in pdf format
- (Required) Presentation slides in pdf format
- (Required) Source code of your project
- (Optional) A demo video in mp4 format

Do not include your UNetID in the slides. We will release your slides on the course webpage.