

CS 6334.001 Virtual Reality Project Description

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1 Project Goal

Besides designing VR systems as the course project, another option is to do an exploratory research project. The goal of this research-oriented course project is to work on one research topic related to virtual reality or augmented reality.

2 Research Topic

The first question to ask when proposing a research project is

- *What research problem will I solve?*

For the research-oriented project, topics will be proposed by the team and then approved / rejected-for-revisions by the instructor. Relevant topics can be found in accepted papers at some VR conferences. For example, IEEE VR is a premier conference in VR, AR, and 3D interface. You may check out recent research (<https://ieeevr.org/2022/program/papers/>) at the conference to learn what topics and problems the VR research community is currently working on.

3 Expectation

Full-scale project developments will be made through the term culminating in a conference-length paper and a presentation at the end of the term. Expectation for the course project:

- an existing algorithm or pipeline applied to new problems;
- a new algorithm (or a modified version of an existing algorithm) applied to the same problem;
- new findings from a comparative study of using different algorithms for the same problem.

To request approval for your team project, the team should discuss the project with the instructor before the proposal deadline.