



Computer Vision

Fall 2025

Course Project

Deliverables & Submission Guidelines

1. Introduction

Each group student has selected a project topic from the provided domains, accompanied by up to three research articles. The chosen research papers must form the core methodology of the system you develop.

You are required to implement an end-to-end computer vision system addressing a real-world challenge in your selected domain. Failure to adhere to originality and academic integrity will result in **zero credit** and an **F grade** for the entire course.

2. Project Requirements

Your final system must:-

- ✓ Implement the core methodology described in the selected research papers.
- ✓ Build a functional end-to-end computer vision pipeline (data acquisition → preprocessing → model training/inference → evaluation → deployment/demo).
- ✓ Use a custom or publicly available dataset, provided it is clearly documented.
- ✓ Demonstrate practical usability through a live demo.
- ✓ Be thoroughly documented for reproducibility.

3. Deliverables & Deadlines

The project consists of multiple phases. Each phase must be submitted before the deadline.

Implementation and dataset submission deadline: **28th November**

Report and Documentation submission: **30th November**

Presentation submission: **1st December**

Demonstration: Between **1st December to 5th December**



3.1 Project Selection

Already done.

3.2 Dataset Collection / Preparation

You must submit: - The dataset you collected or curated - A brief document describing: - Data sources - Data size and format - Data preprocessing steps - Ethical and legal considerations (if any)

3.3 Code & System Implementation

You will submit: - Full source code with proper structure and documentation - Scripts for training, evaluation, and inference - Dataset (if small), or dataset download/collection instructions - Configuration files, pre-trained weights (if applicable) - A final README detailing: - Installation steps - How to run the system - Expected output examples

3.4 Final Project Report

The report must include: - Abstract - Introduction & problem definition - Literature review (based on assigned research papers) - Methodology & system architecture - Dataset description - Implementation details - Experiments & results - Discussion & limitations - Conclusion & future work - References (proper citation required)

3.5 Final Presentation & Demo

You must give a 10–15 minute presentation covering: - Problem overview - Methodology and architecture - Results and evaluation - System demo (live) - Key insights and contributions

Submit the PowerPoint slides used in the presentation.

4. Evaluation Criteria

Your project will be assessed using the following rubric:

4.1 System Implementation (60%)

- Correct implementation of research papers
- Quality of pipeline design
- Functionality and robustness of the system
- Optimization and performance
- Documentation of code

4.2 Project Report (20%)

- Clarity and structure
- Depth of analysis



- Technical accuracy
- Presentation of results

4.3 Final Presentation & Demo (20%)

- Quality of slides
- Clarity and confidence during presentation
- Demonstration of system
- Ability to answer questions

5. Plagiarism & Academic Integrity

Plagiarism in any part of the project—including code, report, dataset, or presentation—will result in: - **Zero credit for the project**, and - **An F grade in the course**.

This includes but is not limited to: - Copying code from the internet without citation - Using someone else's dataset without disclosure - Copying text from research papers or online sources - Submitting work done by another student or external party

All submissions will be checked using plagiarism detection tools.

6. Submission Instructions

All submissions must be uploaded at the GCR portal through the GCR portal in the specified format: - Code: .zip file or GitHub link - Dataset: Provided as files or download link - Report: .pdf - Presentation: .pptx

Late submissions will incur penalties

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7. Final Notes

- Start early—projects are evaluated on completeness and depth.
- Reach out during office hours for clarification or feedback.
- Your final project should demonstrate mastery of computer vision concepts and practical implementation skills.

Good luck, and build something impactful!