

# Computer Vision

## Course Project

Guidelines, Proposal Instructions, and Best Practices for a  
Successful Project

# Team Structure

## Standard Team

Maximum of 2 students per team is allowed to ensure focused collaboration.

## Exceptions

Teams of 3 require a detailed and valid justification in the proposal form.

# Project Constraints

- ✓ **Avoid High Computation:** No extra GPU resources are provided.
- ✓ **Hardware Access:** Ensure you have personal access to necessary hardware.
- ✓ **Feasibility:** Choose models that run on standard machines.
- ✓ **Optimization:** Focus on efficient algorithms over massive models.

# Choosing a Topic



## Compute First

Select topics fitting your available computing power.



## Avoid Trendy

Skip overcrowded topics; find a specific niche problem.



## Paper Potential

Aim for promising problems suitable for publication.

# Literature Survey



- ✔ **Foundation:** Thorough survey is crucial for a strong project.
- ✔ **AI Tools:** Leverage AI tools to accelerate paper discovery.
- ✔ **Quality:** Select recent papers from top-tier venues.
- ✔ **Code Availability:** Prioritize papers that have released their code.

# The Value-Add

## Identify Gaps

Find shortcomings or limitations in the existing work.

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## New Context

Apply the existing idea to a non-trivial domain.

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## Propose Fixes

Brainstorm methods to alleviate identified drawbacks.

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## Verify Idea

Run your concept by TAs to ensure non-triviality.

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# Coding & Implementation



## Use AI Agents

Utilize Copilot and agents for faster coding.



## Implement SOTA

Implement SOTA papers to truly understand mechanics.



## Hands-on Check

Verify paper claims by testing code yourself.

# Integrity Policy

0%

## Zero Tolerance

Ensure absolute originality of your proposal.

Significant similarity leads to poor grades.



# Support & Guidance

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Consult TAs early for topic verification.



Use office hours to discuss feasibility or Drop a message in GChat.



Seek Professor/TA advice if required.



Collaborate to polish final work for publication.

A photograph of two students, a young man and a young woman, working on electronics projects in a laboratory. The young man is on the left, wearing a blue jacket, looking down at a smartphone. The young woman is on the right, wearing a blue hoodie and glasses, using a soldering iron on a circuit board. The table is cluttered with various electronic components, a soldering station, a container of solder, and a pair of safety glasses. A semi-transparent white box with text is overlaid on the left side of the image.

# Get Your Hands Dirty

Experiment. Build. Discover the full picture.

# Questions?

Discuss doubts with the Professor or TAs.

**Submission Deadline: Feb 1st, 2026**