

CS 4699 W13: Undergraduate Research

Fall 2026

Georgia Institute of Technology

Instructor: Anqi Wu

Department: Dept/Computer Science

CRN: 87508

Course Format: Faculty-supervised undergraduate research

Meeting Time/Location: By arrangement

Office Hours: By appointment

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Catalog Description

Independent research conducted under the guidance of a faculty member.

Course Overview

This course provides advanced undergraduate students with the opportunity to conduct independent research under faculty supervision. Students are expected to explore research questions in depth, develop technical contributions, and engage in research practices approaching graduate-level work.

Learning Objectives

By the end of the course, students are expected to:

- formulate and refine research questions within a chosen domain;
- independently conduct technical work such as implementation, modeling, or experimentation;
- critically analyze research literature and position their work within it;
- communicate research ideas, methods, and results clearly;
- demonstrate independence and ownership of a research project.

Course Activities

Depending on the project, activities may include:

- reading and synthesizing research literature;
- developing algorithms, models, or software systems;
- designing and conducting experiments;
- analyzing data and validating results;
- participating in research group meetings;
- preparing a final report, presentation, or research artifact.

Expectations

Students are expected to work with a high degree of independence and initiative. Specifically:

- meet regularly with the instructor or research mentor;
- demonstrate consistent and meaningful progress;
- take ownership of their research direction and execution;
- engage actively in problem solving and critical thinking.

A project plan with milestones and deliverables will be established early in the semester.

Assessment

Evaluation emphasizes research depth, independence, and quality of contribution.

- Initiative and independence: 25%
- Research progress and consistency: 30%
- Technical depth and quality: 30%
- Final deliverable (report, presentation, or equivalent): 15%

Attendance and Communication

There are no formal lectures. Students are expected to attend scheduled meetings and maintain consistent, professional communication. Regular updates on progress are required.

Late Work

Deadlines will be determined based on the project. Students are expected to communicate proactively about any delays.

Academic Integrity

All work must comply with the Georgia Tech Honor Code. Proper attribution of all sources, including papers, code, and datasets, is required.

Accessibility and Student Support

Students requiring accommodations should contact the Office of Disability Services and notify the instructor early. Georgia Tech provides additional academic and wellness resources to support student success.

Institute Policies

All Georgia Tech policies on academic conduct, non-discrimination, accessibility, and student behavior apply.

Note: This syllabus outlines general expectations for advanced undergraduate research. Specific requirements and deliverables may vary depending on the project and will be defined in consultation with the instructor.