

CSC 577

Advanced Topics in Computer Vision

Fall 2016
MW 14:00-15:15 in 601 CSB



Course Overview: This course discusses advanced topics and current research in computer vision. Students are expected to read papers selected from various subareas such as reconstruction, segmentation and grouping, object and activity recognition, scene understanding, and vision and language. Approaches for learning from image and video data will be covered and include topics from convolutional neural networks, recurrent neural networks, structured predictions and others. The course will be a mix of lecture, student presentation and discussion. Prior experience from CSC 249/449 or CSC 246/446 is expected.

Student Workload: The course will consist of extensive paper reading, reviewing, critiquing, presenting and discussing. To facilitate the advanced material, the professor will lecture on necessary background material. Students will read three papers and write two paper reviews each week; make at least two paper presentations during the semester (depending on the size of the course); complete a final project on a research topic by either replicating a paper or testing a new idea.

Course Goals: Students will get exposed to a variety of topics in computer vision and become familiar with state of the art techniques, develop skills to evaluate other people's work, and gain research experience in conducting original research.

Prerequisites: CSC 249/449 or CSC 246/446 or permission of the instructor.

Instructor: Prof. Chenliang Xu, Department of Computer Science

Website: <http://www.cs.rochester.edu/u/cxu22/t/577F16/>