

# Deep Learning, Columbia University

## Projects Administration, Review, and Evaluation

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Task	Date
Team forming and signup	February 22
Selecting projects	February 26
Proposal submission and meeting	March 5/6/7
Milestone submission and meeting	April 2/3/4
Presentation in class	April 24/26
Report submission and meeting	April 27/30

## 1 Google Sheets Link

<https://goo.gl/dGAZTi>

## 2 Team Forming

Projects are performed in teams of 3 students.

Students use the first two assignments as a testing ground for finding a team that works for the project. Students team up by signing up online by November 1st.

## 3 Topics and Mentors

### Tracks

Select a track among the following: vision and graphics, social good, meta learning, game playing, finance, natural language processing, music, recommendation systems. Each of the course staff is available for mentoring specific tracks and projects based on their domain.

### Projects

Select a project from the list of 25 available projects or propose your own topic.

## **Mentors**

Select a corresponding mentor for your track and project. If you propose your own project then first ask for mentor permission. Authorship of the project report includes your mentor and instructor, with their permission.

## **4 Meetings**

### **Scheduling**

Schedule a meeting for your project proposal, milestone, presentation, and report. Select an available date and time for a meeting with the mentor corresponding to your project. Highlight your selected meeting time slot as taken. Availability is on a first-come-first-serve basis. Once reserved, make sure you receive and e-vite from your mentor and approve on calendar.

### **Preparation**

Prepare for your first meeting by submitting your proposal on courseworks before the meeting, and by reading the related papers which appear in your project reading material.

## **5 Google Cloud credits**

Request: if you require Google Cloud credits for your project then fill in your request in the online shared document.

Google Cloud project: using your LionMail have one teammate create a Google Cloud project and invite the other teammates to your project.

Redeem credits: redeem the code for your project which is available in your team row in the online document. To redeem the code, use your LionMail account and redeem the code at this page <https://console.cloud.google.com/education>. Do not use any other payment methods except for the code received.

GPU training: if you require, request GPU quota in your Google Cloud Project. Finally, run your instance and train your models.

## **6 Proposal**

One page document submitted on courseworks the day before the proposal meeting. The following table summarizes the evaluation metrics for the project proposal.

Description	Grade
Previous work and references	2 points
Understanding the problem, it's formulation, and goal	2 points
Dataset to be used or collected, method or algorithm proposed	2 points
Well defined evaluation criteria	2 points
Writing clarity and structure	2 points
Total	10 points

## 7 Milestone

Three page document submitted on courseworks the day before the milestone meeting. The following table summarizes the evaluation metrics for the project milestone.

Description	Grade
Introduction	2 points
Problem formulation	2 points
Related work and references	2 points
Methods	3 points
Preliminary results	3 points
Technical depth and innovation	3 points
Architecture and design	2 points
Code repository, correctness, and readability	4 points
Total	20 points

## 8 Format

Milestone and report are submitted in latex format using the following template:  
<http://cvpr2018.thecvf.com/files/cvpr2018AuthorKit.zip>

## 9 Review Process

Review and grading of project proposals and milestones are performed by the entire course staff. Each proposal and milestone is individually brought up for a detailed discussion, grading, and helpful feedback.

## **10 Presentation (20 points)**

### **Slides**

Slides, visualization, appearance of images, legibility (30 points).

Tips: limit each slide to 8 lines of text or less, with standard fonts of 28 points or more with large spacing. Use contrasting colors consistently.

### **Delivery**

Delivery, clarity, timing (30 points).

Students have 10 minutes for their presentation, including questions and answers.

Tips: plan your talk and number of slides for a relaxed pace. Practice your talk before your presentation. Time yourself and slow down.

### **Content**

Content, organization, questions and answers (40 points).

At the end of each presentation mentors and students are free to ask questions.

### **Grading**

Presentations will be graded by the TA's and instructor offline.

### **Attendance**

All teammates are required to attend all presentations on their day of presentation.

### **Submission**

Please upload your presentation in Google Slides format or Power Point format to the provided Google Drive directory in the subdirectory corresponding to your presentation date at least one day before your presentation.

## 11 Report (50 points)

Schedule a meeting for your project report. Your report (pdf) should be between 6-8 pages (see format), and submitted online the day before the meeting. The following table summarizes the evaluation metrics of the project report.

Description	Grade
Introduction	5 points
Related work and references	5 points
Problem formulation	5 points
Methods	8 points
Results	10 points
Technical depth and innovation	5 points
Architecture and design	2 points
Code repository, correctness, and readability	10 points
Total	50 points

### Review questions

1. Briefly summarize the project.
2. What are a few positive aspects of the project?
3. Are there any potential drawbacks of the project?
4. Does the report consider previous approaches or is there major work which is missing?
5. Is the problem clearly stated? Does it make sense?
6. Is the project related to deep learning and the topics covered in class?
7. Is the method clearly described? If not, which paragraphs or statements are unclear.
8. Is there a new or useful component to the project?
9. Is there a Bitbucket/Github code repository? Is the code readable and working?