**CS470/570  
Artificial Intelligence  
Spring 2018  
Project #3  
Due: Wednesday, May 2nd (Notice the date has changed.)**

For this project you have the option of implementing **one** of two of the AI techniques we have discussed, but haven't implemented. These links supply the details for each option:

1. [Prolog](http://www2.cs.uidaho.edu/~cs470_570/s18/prologProject.html) - Implement a Prolog knowledge base.
2. [Constraint Satisfaction](http://www2.cs.uidaho.edu/~cs470_570/s18/CSPProject.html) - Implement and compare two (or more) constraint satisfaction algorithms on a map coloring problem.

**Write-up**: Write your results as a paper. Plan on about 3 pages, including data or sample output (for the Prolog project). The paper should include the following:

* An abstract summarizing what you did and what the results were.
* A methods section describing either your algorithms or the general syntax of your knowledge base (for the Prolog project), including the general form of the rules, examples of rules, etc.
* A results section that gives the results of your algorithms or provides sample queries and results (for the Prolog project). For the Prolog project include a mixture of simple queries (who is Sam's father?) and complex queries (who are all of the sisters in the knowledge base?). If there are any queries it does not answer satisfactory include examples of those. For the CSP and decision tree projects the data should show the reliative performance of the algorithms you tried.
* A discussion section that discusses the strengths and weaknesses of your algorithms or Prolog knowledge base.
* A copy of the code or, for the Prolog project, an appendix containing the full knowledge base.