CS 5600/6600: F24: Intelligent Systems
Project 2 Proposal

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Problem 1 (1 point)

Write a brief (at most 2 pages) project 2 proposal and submit it in Canvas. I will do my best to give you feedback on your proposal as soon as I can. Your proposals should have the following components.

1. State what you intend to do clearly and concisely and how it is related to CS5600/6600. Your project can do data-driven or symbolic AI. Your statement can be of the form: I plan to build a ConvNet/ANN or use YOLOv3/YOLOv4/YOLOv7/YOLOv8 to classify a dataset Y or I plan to build a transformer to convert sequences of type A to sequences of type B or I plan to design a time series forecaster to predict X from Y and train and test my forecaster on a dataset Z or I plan to knowledge engineer GPS operators to solve problem X or I plan to extend ELIZA/CA/SAM to handle the following NL inputs. The only restriction is this: you may not recycle a project you have done or are doing for a different class. Note that this does not mean that you cannot do a project related to your M.S. thesis (so long as you have not done it already). Please do not propose anything with MNIST. That horse is really dead!

2. State the resources that you intend to use for your project, e.g., PyTorch, Tensorflow, OpenCV, OpenGym, ELIZA, CA, SAM, GPS, etc. If you do data-driven AI and want to train a classifier, a regressor, or a time series forecaster on some dataset, clearly specify the URL (or some other resource) where the dataset is available. Be careful with your datasets. A couple of students in the past proposed great projects with interesting datasets related to their jobs. The problem was that their bosses did not allow them to share the datasets. I will have to see at least a representative sample of your dataset when grading your project. State if the data are curated, i.e., labeled and classified. I would not recommend a project for which you need to collect and annotate your own data, unless, of course, you have a readily available tool that can synthesize thousands of data items in a matter of (at most) hours. You simply don't have the time for any serious data engineering effort. Take my word for it: engineering a F.A.I.R (findable, accessible, interoperable, and reusable) dataset for serious bulldozing takes a LOT of time.

3. State the list of deliverables. For example, you can state that you will train an ensemble of ConvNets to do X and submit your source and trained models in a github repo along with a performance report.

4. If you are doing a project with multiple dependencies, you will have to write a README explaining how your project can be run. Take this note to heart, because there won't be any recourse to scheduling a zoom/F2F appointment with myself or the grader after the project's due date (the last day of the exam week – Friday, December 13, 2024 by 11:59pm). Your code should run out of the box. If your project has too many dependencies, e.g., unusual third party libraries, a game engine, etc., I would seriously consider submiting a demo screencast/video along with the project report and the source.

5. Write your project's schedule. Identify several benchmarks and state how you will achieve them. It would be great to see the actual dates in your schedule.

6. Identify your project's risks. Every project has risks. Your school schedule, your work schedule, your family obligations, your physical and mental (stress) health – these are important factors to keep in mind when you write your proposal. Basically, I want you to think about what may prevent you from achieving the project's objectives. Remember that you realistically have ≈3 weeks to complete your project. There is life after CS5600/6600: F24. Get something concrete done well and then extend it if you so wish after you're done with this class.

7. Save your proposal in `project2_proposal.pdf` and submit it in Canvas.