

CSC 466 - Group Project Pitch

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Summary Statement

To teach what we learn in this class, we plan to make an interactive website and accompanying videos that cover decision trees, potentially unsupervised learning, as well preliminary data science skills/tools.

Specific Aims

- Why are decision trees useful?
- What types of datasets can decision trees be applied to?
- How can decision trees be built using familiar Python modules?
- What are alternatives to decision trees?

Roles

Roles are defined on a week by week basis in the [Proposed Timeline](#).

Proposed Timeline

- Week 4 (Start week)
 - Setup a shared github account (org?) — *RT*
 - Maybe a youtube account to host videos on — *RT*
 - Setup repos for static website, dataset, and code — *BG*
 - Not actually finding dataset just getting ready for it
 - Make simple and minimal wireframe for interactive website — *EZ*
- Week 5
 - Start basic website development not yet related to tutorial — *EZ*
 - Home page/navbar/footer
 - Researching decision trees and finding a good dataset for them — *BG*
 - Dataset should be small but exemplify the use case.
 - Any data wrangling needed for found initial dataset
 - Template for tutorial page: video, code snippets, text, headings — *RT*
- Week 6
 - Do: Introduction to decision trees
 - Develop working decision tree model using dataset — *BG*
 - Blog post with visualizations — *RT*
 - Video for how decision trees work (decision tree introduction) — *EZ*
- Week 7 & 8
 - Do: Example(s) (more than one if time permits) with decision trees
 - Develop Python Notebook for example — *EZ & RT*

- Convert ipython notebook into blog — *BG & EZ*
 - Go over example in a video — *RT & BG*
- Week 9
 - Cover preliminary skills needed for data science such as (if thought to be useful — see [Notes](#) #1)
 - Numpy — *EZ*
 - Pandas — *BG*
 - sklearn — *RT*
 - For each, do:
 - Develop python notebook covering each tools
 - Convert ipython notebook into blog with code and text
 - Bonus: Go over how to use tools in video
 - Presentation development
 - PPT or something else. Dependent on project specs — **Everyone**
- Week 10 (End week)
 - Finish up deliverables and put finishing touches on website — **Everyone**

Notes

1. Should we cover preliminary skills or is this outside the project scope?
2. Unsupervised learning may be covered weeks 8-9 instead of examples?

Deliverables

- Presentation
 - Slides
 - Live demo of final product and presentation with slides
- Interactive Website
 - Demo during presentation
- Youtube account, Github org account, repos
 - Links to everything