

Project Proposal

Predicting Recessions Using Economic indicators

Using several economic/job indicators such as GDP, Employment rates, Wage increases, etc.

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Data Sets

Our topic will be in the domain of the economy and jobs. Specifically, we will be analyzing various economic and job indicators to predict with a degree of certainty the occurrence of a recession. The main source of the data will come from the OECD data sets under the topics Jobs and Economy. The data will be taken from 1980-2015.

Types of knowledge/patterns we plan to discover

We will analyze several job and economic indicators such as: cost of living, unemployment rates, stock dividends, number of full time jobs, wage increases,

Timeline for the tasks

1. Plan Outline
2. Economic Research
3. Data Research
4. Pre-Processing Program
5. Discuss viability with professor
6. Finish program
7. Testing
8. Graph creations
9. Final Report
10. Slides
11. Presentation

July 22-27: 1-3

July 28-31: 4-6

July 31-August 5: 6-10

August 5 - Final: 7

Assigned Tasks for Team Members

Jesus: Graphs, contribute towards the final report and slides, contribute on the coding portion
contribute on the proposal

Jose: Economic Research, Refining Data, Hypothesis testing, Graphs

Nikko: Research unemployment rates between different countries

Utkarsh: refining data and markers from the data to achieve results, analysing what markers lead to answer to an economy spiraling into a recession.

*Subject to change

Software Tools and OS

Numpy will be used to clean up, sort, and analyze the data. The matplotlib.pyplot library will be used to produce the plots in conjunction with Microsoft Excel. Spyder, Jupyter lab, and linux based terminals will be used to write the python code. Github will be hosted as a source control repository and most of us will be using GitKraken as the main interface to make changes to it. All programs written will be run, as a final test, on the school vdi computers to assure that our work done through different operating systems is valid.

Conduction of Meetings

We are meeting once a week at a minimum, days and times are dependent on the team members' availability. Those who cannot be physically present at the meetings will be online during the meeting times and use slack/groupme to communicate with the team in real time. Meetings will be conducted in the general manner:

- 1) Plan our approach into a certain task along the course of this project.
- 2) Compare gathered resources to meticulously complete this project.
- 3) To share tasks and, if need be, offer help on other individual's contributions.