Coding Samples

Matlab [Link]

This code solves the model from the working paper *"Always Silent? Endogenous Central Bank Communication During the Quiet Period."* It features a machine learning-like algorithm to solve the model and uses Monte Carlo simulations to gather observations. The page includes:

- .m file
- Its HTML representation
- A code flowchart for a more comprehensive understanding of the code
- An example of the output file.

Python [Link]

This collection of codes is an integral part of a larger project aimed at analyzing Fedspeak through GPT models, details of which are outlined in the Readme. Currently, the repository serves as a showcase of code samples for RA applications. It includes scripts that tackle extracting text relevant to each of the Alternatives prepared by the Fed staff from Bluebooks/Tealbooks. These scripts are tailored to handle complex scenarios where the text may include graphs, tables, footnotes, and analytical boxes. The scripts address situations where multiple Alternatives are mentioned in one sentence. They also detect when Alternatives are not the main focus but are merely referenced for comparative purposes, as well as identifying when the discussion of an Alternative concludes, even if the ending does not explicitly mention the Alternative. These issues are adeptly managed using the Python + GPT API. I will shortly enrich the repository with the project's first draft and all the associated code and data. Should you need to review a single file, I recommend selecting gen_mentions.py.

Additional: Stata [Link]

This small code from a recent data task for another RA position merges a .txt file with several .csv files into a unified dataset. It applies Regression Discontinuity Design to investigate the influence of Yelp ratings on revenue, scrutinizes data oddities, and examines potential review manipulations near rounding points. Then, it demonstrates how assumptions in data preprocessing can affect Regression Discontinuity Design outcomes.