

Bayesian Time Series Analysis of US Unemployment Rates

STAT 447C Final Project - Project Report

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Problem Formulation

- A real-world inference task/problem.
- Succinct but sufficient context (e.g. biological terminology) needed to understand the problem.
- The key modelling/methodological/challenge, clearly associating it with one of the items under the “menu of project themes” above.
- Project Theme: Methodological/theoretical aspect of the project: Is the approach sound? Creative?

[To be added]

Literature Review

- The report contains a literature review, where relevant literature is cited and properly summarized.

[To be added]

Data Analysis

- A Bayesian model is precisely described (e.g., using the $\dots \sim \dots$ notation).
- Implementation code in the appendix (e.g., using Stan)
- Prior choice is motivated. If appropriate, several choices are compared or sensitivity analysis is performed.
- Critical evaluation of the posterior approximation. An appropriate combination of diagnostics, synthetic datasets and other validation strategies.

[To be added]

Discussion

- Does the report describe key limitations?

[To be added]

Appendix

[To be added]