# Proposal for Multilevel Analysis of Portuguese Election Data

### Zengqi Chen

November 8th, 2023

### 1 Personal Statement

I aspire to be a data analyst in public policy, driven by a commitment to inform policy decisions through rigorous data analysis. My goal is to delve into the complexities of electoral behavior, providing insights that can shape democratic processes and governance. This project, focused on the 2019 Portuguese election data, is an intentional step toward my career goal, offering a valuable opportunity to apply my analytical skills to real-world political data.

# 2 Research Objective

The objective of this research is to apply multilevel modeling techniques to assess the influence of regional and temporal factors on voting patterns [2]in the 2019 Portuguese elections. This study aims to identify the key drivers of electoral performance across various territories and over time, thereby providing actionable insights for future public policy and electoral strategy development [1].

## 3 Data Source

The dataset for this analysis is sourced from the UCI Machine Learning Repository: Real Time Election Results in Portugal 2019. It comprises detailed voting records by party across different regions and time points during the election period.

### 4 Timeline

- EDA: November 10th November 17th
- Data Processing: November 18th November 24th
- Modeling and Validation: November 25th December 2nd
- Write-up: December 3rd December 10th

#### References

- [1] Dieter Stiers. Spatial and valence models of voting: The effects of the political context. *Electoral Studies*, 80:102549, 2022.
- [2] Laura Stoker and Jake Bowers. Designing multi-level studies:: sampling voters and electoral contexts. *Electoral Studies*, 21(2):235–267, 2002.