

# **Project Title**

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Report for Client Pty Ltd

2 March 2024

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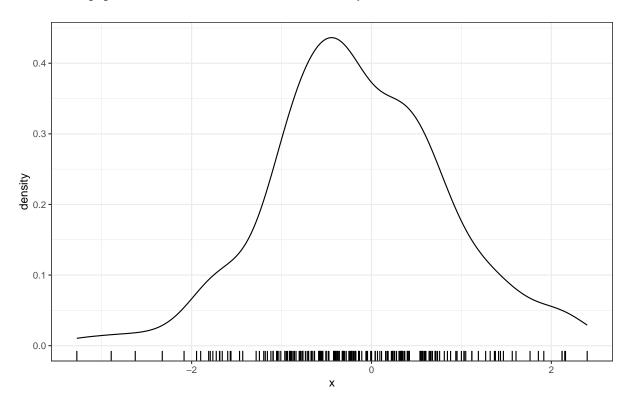
## **1** Executive Summary

Briefly summarize the main findings and recommendations from the statistical analysis.

#### 2 Introduction

Provide background information on the project, including the objectives, scope, and any relevant context.

In a famous paper, Box & Cox (1964) introduced a family of transformations ...



**Figure 1:** Simulated data from a N(0,1) distribution.

Figure 1 shows a kernel density estimate of simulated data from a N(0,1) distribution. The sample variance is given by

$$s^{2} = \frac{1}{n-1} \sum_{i=1}^{n} (x_{i} - \bar{x})^{2} = 0.98.$$
 (1)

Note that Equation 1 is an unbiased estimate of the variance, but it is not the maximum likelihood estimate (Rice 2007, p.269).

## 3 Data Description

Provide an overview of the dataset used for the analysis, including its source, size, and any preprocessing steps taken.

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# 4 Descriptive Statistics

Present summary statistics and visualizations to describe the characteristics of the data.

## 5 Methodology

Describe the statistical methods and techniques used for the analysis, including any assumptions made.

### 6 Modeling

Detail any models developed for prediction or inference, including the model selection process and evaluation criteria.

#### 7 Results

Present the main findings of the analysis, including any significant relationships or patterns discovered.

#### 8 Discussion

Interpret the results in the context of the research objectives and relevant literature. Discuss any limitations of the analysis and potential areas for further investigation.

#### 9 Recommendations

Provide actionable recommendations based on the findings of the analysis.

#### 10 Conclusion

Summarize the key points of the report and emphasize the implications for decision-making.

## 11 Appendices

Include any additional information, such as detailed tables, code snippets, or supplementary analyses.

#### 11.1 Disclaimer

The findings and recommendations presented in this report are based on the analysis performed by Wave Data Labs Pty Ltd. While every effort has been made to ensure the accuracy and reliability of the information provided, we cannot guarantee its completeness or suitability for any particular purpose. Wave Data Labs Pty Ltd shall not be held liable for any damages, losses, or expenses arising from the use of this report or any decisions made based on its content. Users are advised to exercise their own judgment and seek further professional advice as necessary.

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## **References**

Box, GEP & DR Cox (1964). An analysis of transformations. *Journal of the Royal Statistical Society, Series B* **26**(2), 211–252.

Rice, JA (2007). Mathematical Statistics and Data Analysis. 3rd edition. Duxbury.

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