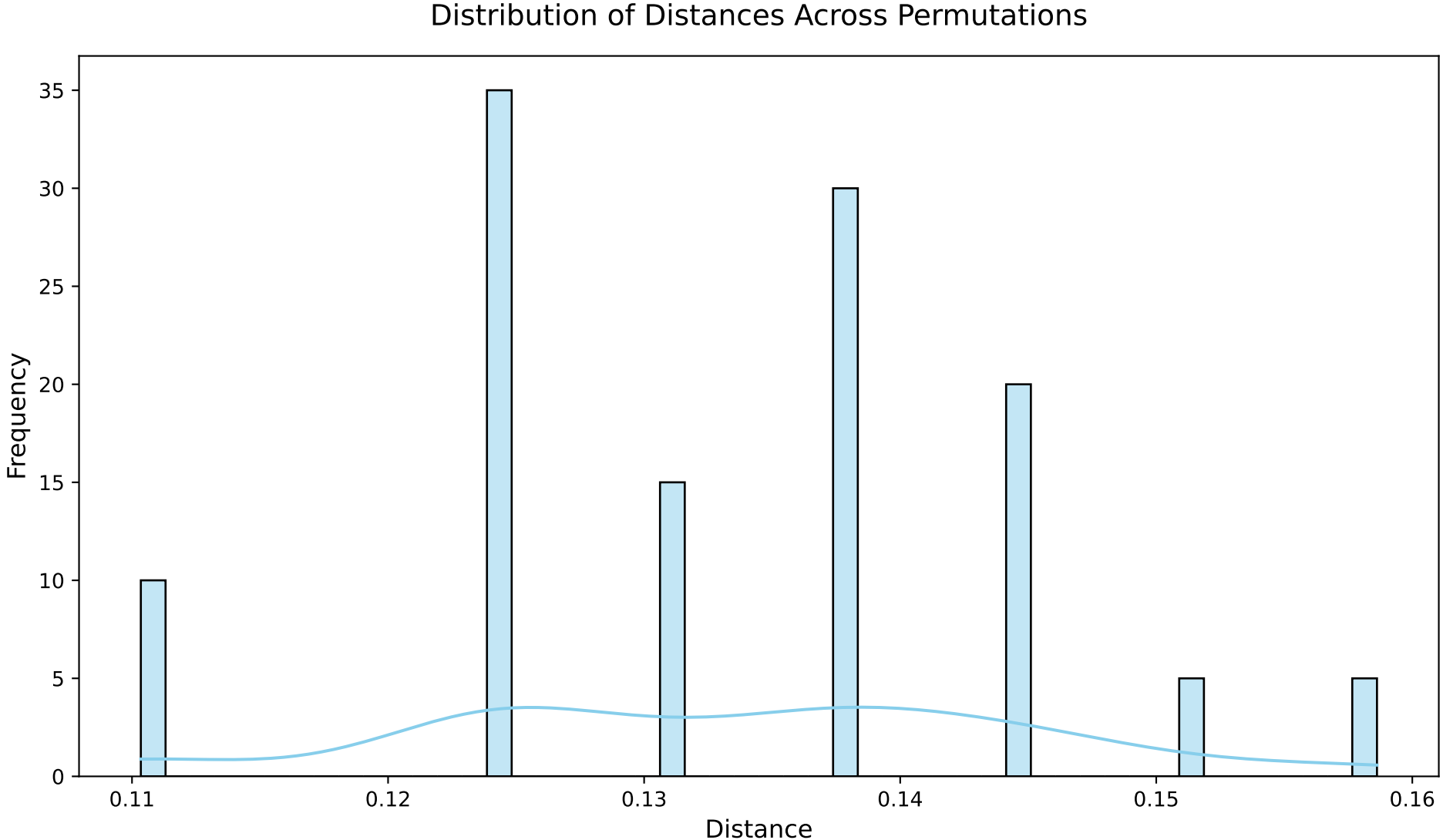
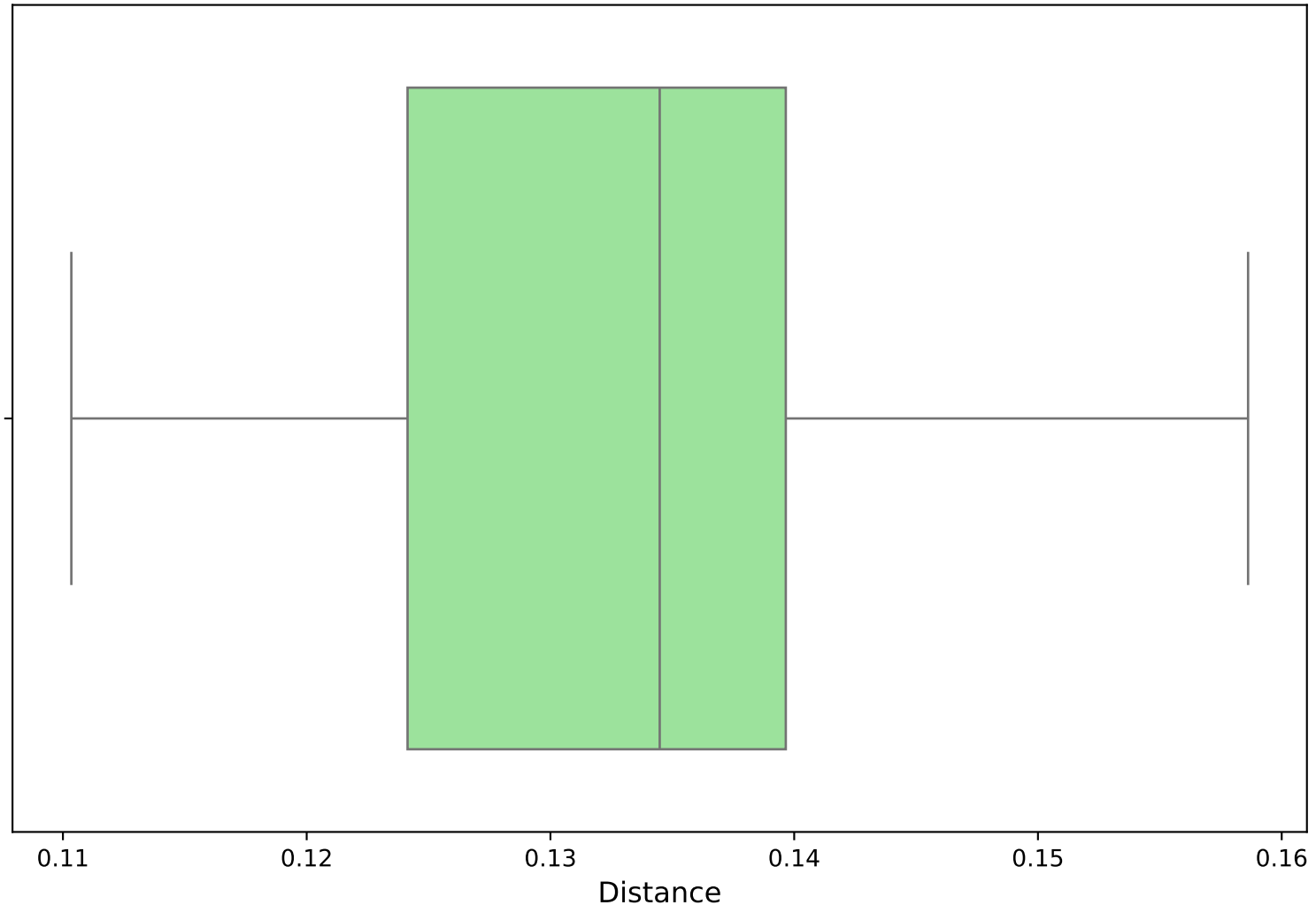
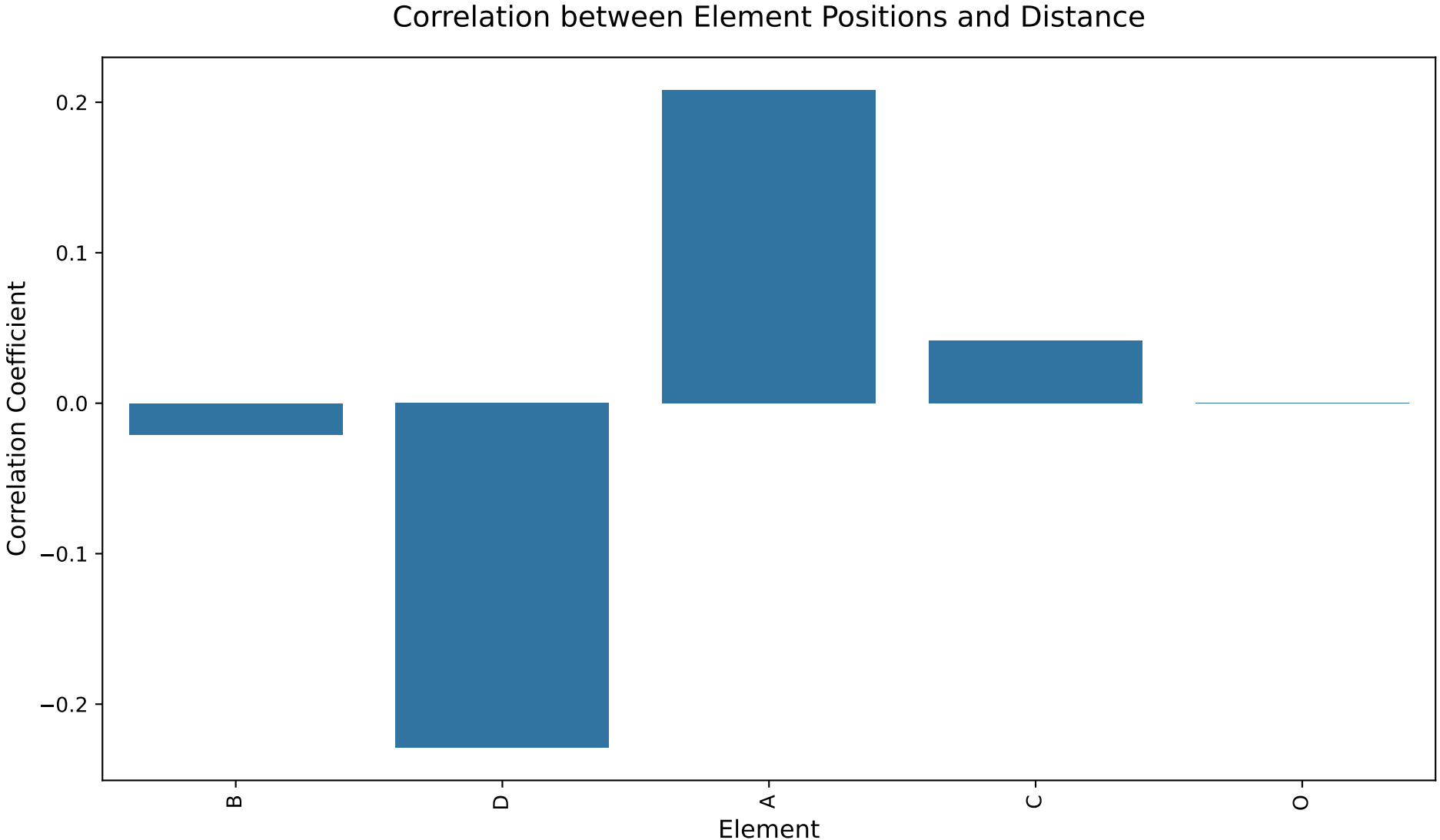
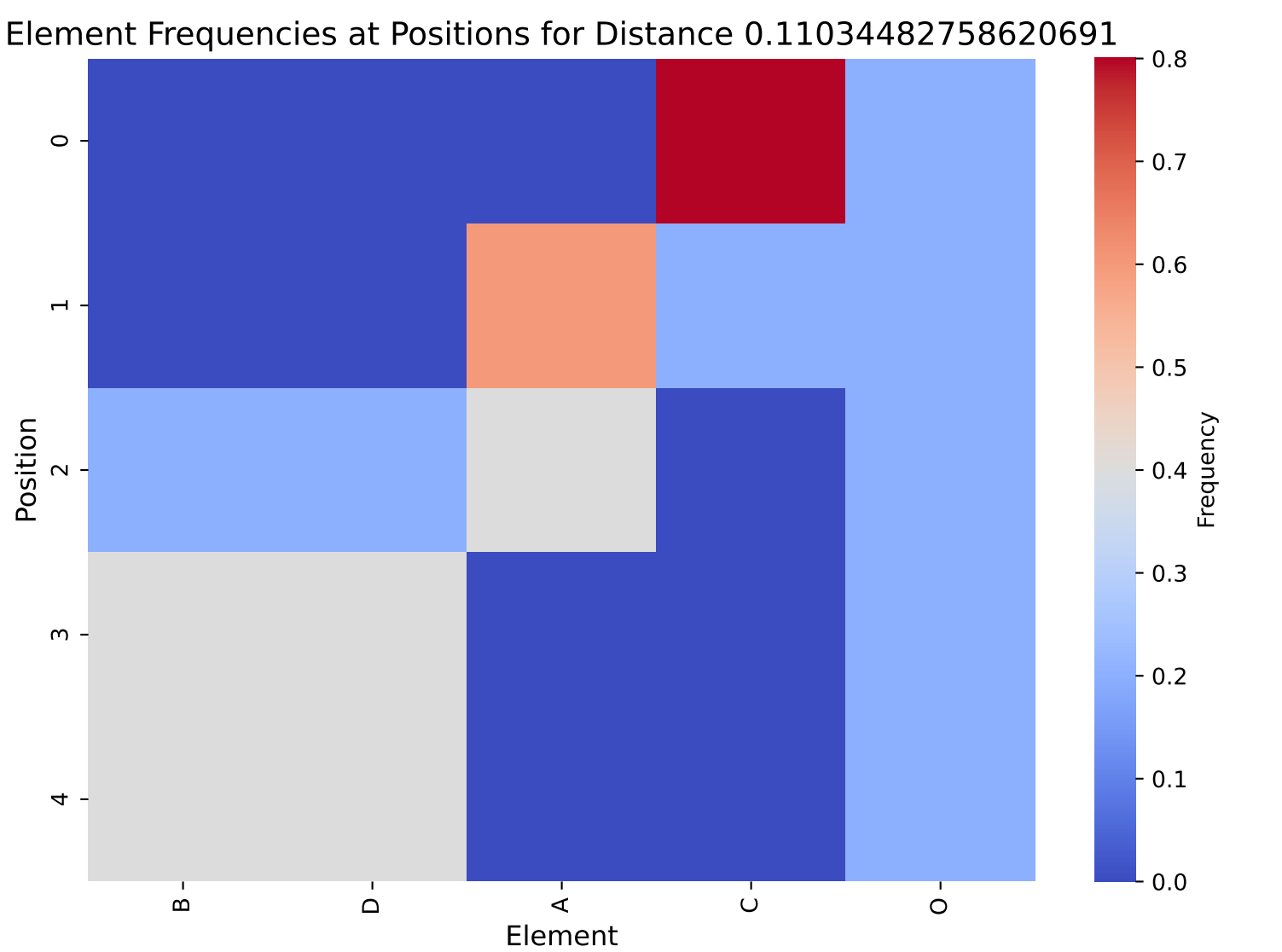


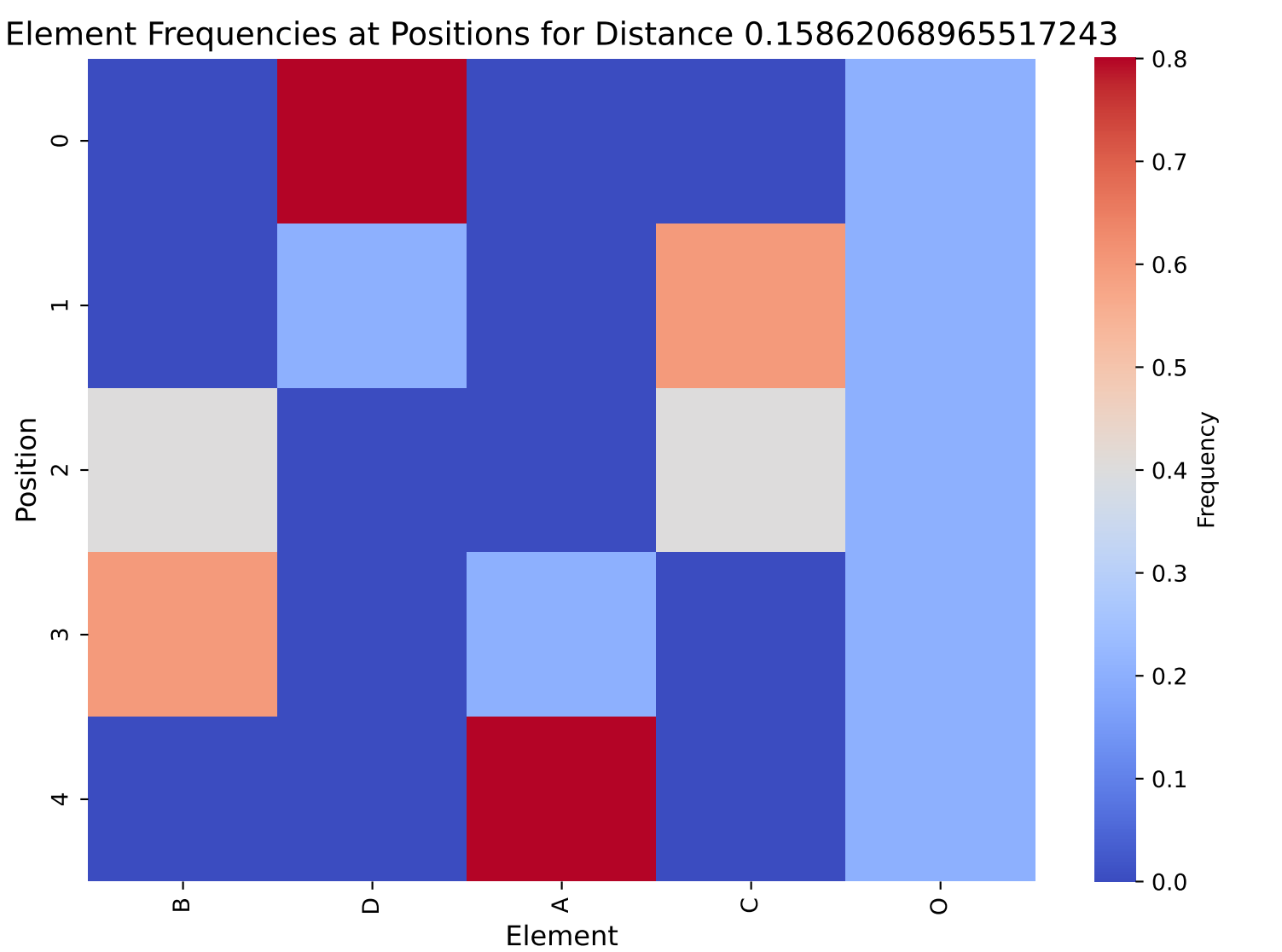

Histogram showing how distances vary across all permutations.




Boxplot illustrating the central tendency and dispersion of distances.


Correlation between Element Positions and Distance
Correlation Coefficient
0.2
0.1
0.0
−0.1
−0.2
B
D
A
C
O
Element


Element Frequencies at Positions for Distance 0.11034482758620691
Position
0
1
2
3
4
B
D
A
C
O
Element
Frequency
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0


Element Frequencies at Positions for Distance 0.1586206896551724
Position
0
1
2
3
4
Element
B
D
A
C
O
Frequency
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

# Statistical Summary of Distances

| | Value |
|---|---|
| Mean | 0.133333 |
| Median | 0.134483 |
| Standard Deviation | 0.011722 |
| Variance | 0.000137 |
| Minimum | 0.110345 |
| Maximum | 0.158621 |

Shapiro-Wilk Normality Test Results:

| Test | Statistic | p-value |
|---|---|---|
| Shapiro-Wilk | 0.936781 | 0.000026 |

This page summarizes key statistical measures of the distance data.

# Permutations with Minimal Distance: 0.110344827586206911

C, A, B, O, D
C, A, O, D, B
C, O, A, B, D
O, C, A, B, D
C, A, D, B, O
C, A, B, D, O
C, O, A, D, B
C, A, O, B, D
C, A, D, O, B
O, C, A, D, B

Permutations resulting in the minimal total distance among trees.

# Permutations with Maximal Distance: 0.15862068965517243

D, C, B, A, O
D, C, B, O, A
O, D, C, B, A
D, O, C, B, A
D, C, O, B, A

Permutations resulting in the maximal total distance among trees.