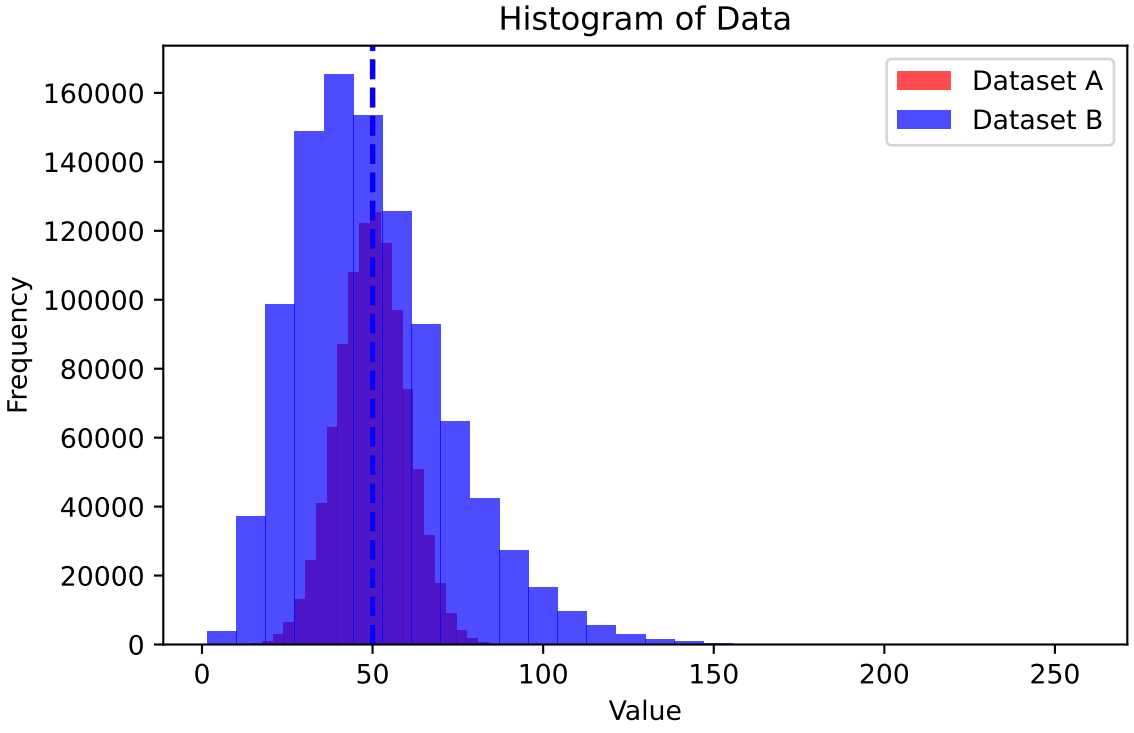
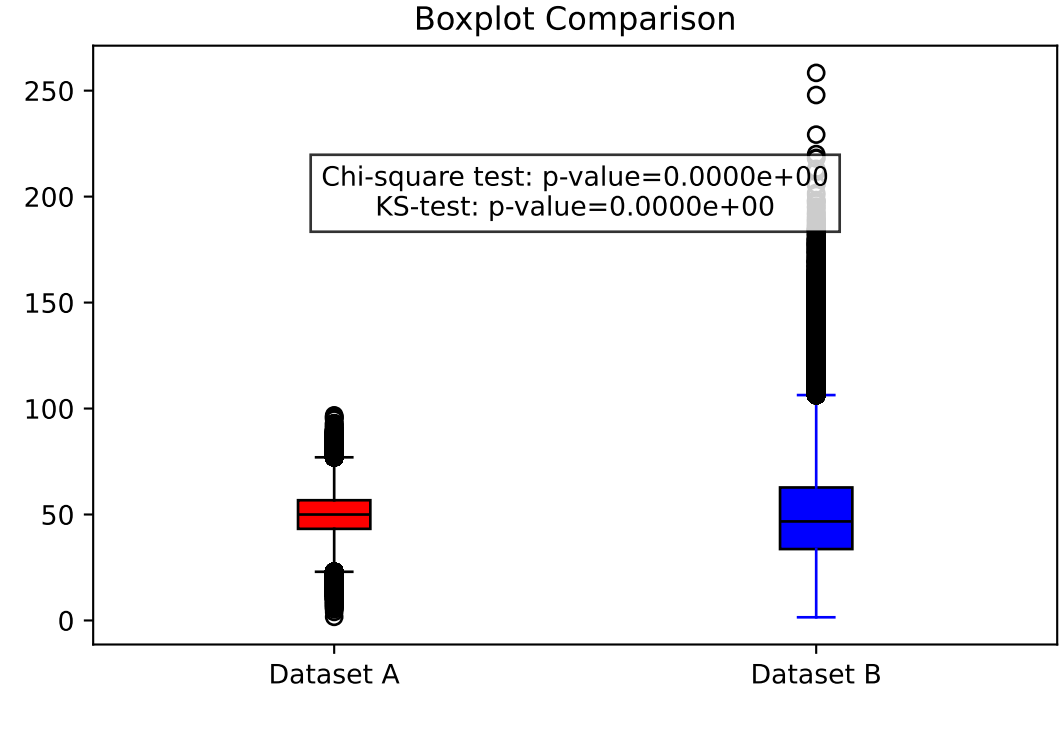
Shapiro-Wilk Test for Normality (done on subsets because N>5000):
Dataset A subset: statistic = 0.9997, p-value = 0.8377
Dataset B subset: statistic = 0.9535, p-value = 0.0000

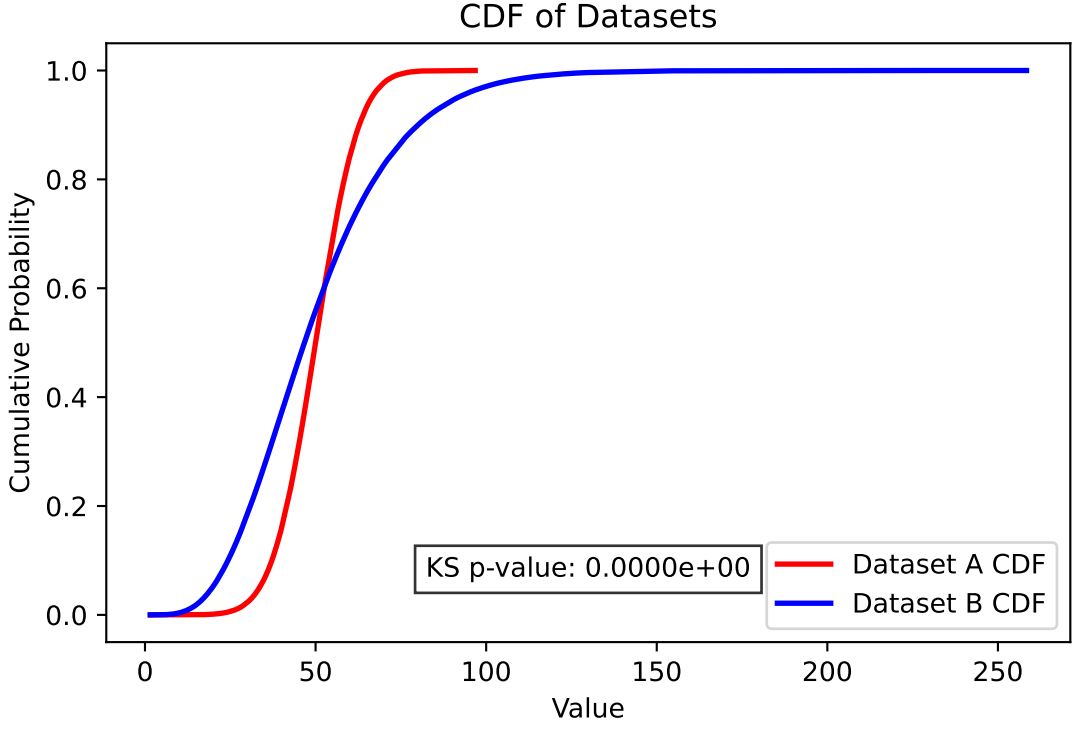
Anderson-Darling Test for Normality (on full datasets):
Dataset A: A2 = 0.2776
  Significance level: 15.0%, Critical Value: 0.5760
  Significance level: 10.0%, Critical Value: 0.6560
  Significance level: 5.0%, Critical Value: 0.7870
  Significance level: 2.5%, Critical Value: 0.9180
  Significance level: 1.0%, Critical Value: 1.0920
Dataset B: A2 = 8917.0256
  Significance level: 15.0%, Critical Value: 0.5760
  Significance level: 10.0%, Critical Value: 0.6560
  Significance level: 5.0%, Critical Value: 0.7870
  Significance level: 2.5%, Critical Value: 0.9180
  Significance level: 1.0%, Critical Value: 1.0920

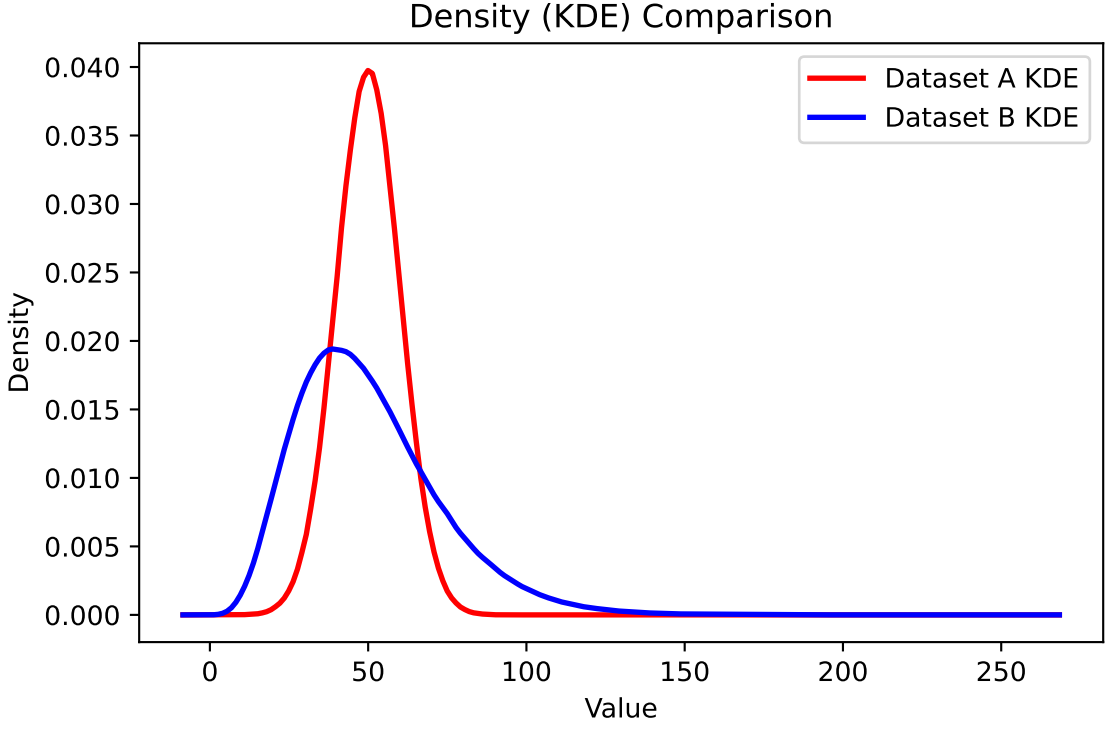
Data is not normally distributed. Using Pearson Chi-square test on binned data...
Chi-square Test Results:
Chi-square statistic: 361918.8269772363
Degrees of freedom: 18
P-value: 0.0

KS Test Results (For Distributional Differences):
KS-statistic: 0.217063
P-value: 0.0


Histogram of Data
Dataset A
Dataset B
Frequency
Value
0
20000
40000
60000
80000
100000
120000
140000
160000
0
50
100
150
200
250


Boxplot Comparison
Chi-square test: p-value=0.0000e+00
KS-test: p-value=0.0000e+00
Dataset A
Dataset B
0
50
100
150
200
250


CDF of Datasets
KS p-value: 0.0000e+00
Dataset A CDF
Dataset B CDF
Cumulative Probability
Value
0.0
0.2
0.4
0.6
0.8
1.0
0
50
100
150
200
250


Density (KDE) Comparison
Dataset A KDE
Dataset B KDE
Density
Value
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0.035
0.040
0
50
100
150
200
250