

Consider top 1000 family names based on US census dataset (Names\_2010Census\_Top1000.csv). Fit a power-law distribution to this dataset and report the following findings.

1. What is the exponent and intercept of the power-law distribution?
2. How were the values in Question (1) determined? Provide a summary of the steps.
3. Generate log-log plot for the power-law fit to the dataset. How would you evaluate the fit of your model to the data?