Seenopsis: a tool for first exploring and visualization of available variables in a dataset

The Why

As an epidemiologist, responsible for the design of medical research, once I have a dataset I need to "feel" the variables.

Though essential, this task is sometimes repetitive, time consuming and mainly boring. What if there was a tool that centralizes the main important features of all the variables in the dataset, helping you explore the variable in a structured visualized approach?

The What

seenopsis is designed to help the everyday work of a data scientist, to first explore the available variables in a dataset.

The How

The only required argument in **seenopsis** is the name of the dataset. Other arguments are optional.

The Vision

This is how I imagine the output of seenopsis:

Variable name	Type of variable	Distribution	Missing	Basic stat	Outliers
age	Continuous	500- 500- 500- 500- 500- 500- 500- 500-	Missing: 31,790 Total population: 3,695,863 Percent of missing: 0.86%	Min: 0.01 Max: 102 Mean: 40.3 Median: 38.5 SD: 1.1	>1.5 sd: 80 >2 sd: 50 >3 sd: 3 Optional [values, direction]
Smoking_ status	Categorical (3 categories)	450000 - 350000 - 300000 - 200000 - 200000 - 150000 - 150000 - 150000 - 50000 - 0 Never Current Plat	Missing:1,145,717 Total population: 3,695,863 Percent of missing: 31.0%	-	-
Stroke_ comorbid	Binary	800000 - 760000 - 760000 - 770000 - 770000 - 770000 - 7000000 - 7000000 - 7000000 - 7000000 - 7000000 - 700000 - 7000000	Missing: 609 Total population: 3,695,863 Percent of missing: 0.02%	Min: 0 Max: 999	-