

- For MD in training data (to create RF):

- 1) Initial Guess: replace missing variable w/ <sup>(mode)</sup> most common value amongst other data samples w/ same ground truth label (OU)
- 2) Run all data through random forest & generate proximity matrix

sampler 1 2 3...

1  
2  
3  
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①

\* whenever samples end up in same leaf node

\* run thru all trees

\* divide prox. vals. by numTrees

- 3) Weighted frequencies of variable vals using proximity vals as weights (weighted average for numeric vars)

Repeat steps 1-3 6/7th times until missing data vals converge (no changes each time)

- For testing/ new data for RF categorization:

- 1) Make copies of the data sample w/ the different possible ground truths/OU's
- 2) treat like training data to fill in variables  
i.e. go through the previous steps iteratively
- 3) run the full data samples (w/ the different OU's) through the F's,  
the one that gets labeled correctly the most wins  $\Rightarrow$  sample classified

Medium article (Airbnb)

- could drop value - not good
- 1 step precomputation method, normalises features to construct distance metric to fill in missing vals w/ the median of the K nearest neighbors