

# Assignment BONUS

January 5, 2022

## Finite state machines testing

Each of you have a different automaton for this assignment. You will find them in the attached archive. You can use the attached Python script.

1. Visualize your automaton.
2. Compute the characteristic set -  $\mathcal{W}$  - of your automaton and sort it in a lexicographic way. i.e.:
  1. e01, 2. e98, 3. e01-e01, ...
3. For every node create a list of possible outputs if the automaton is given as an input a sequence from  $\mathcal{W}$ .
4. Create a table that will contain - for every pair of nodes - a lowest index of a sequence from  $\mathcal{W}$ , that discerns between them.
5. Put results from all of the above into a document / zip archive and upload it.

*Notation remark: outputs start with 'o', inputs start with 'e' and nodes start with 's'.*