```
!git clone https://github.com/dassarthak18/SobolBox.git
%cd SobolBox
!pip3 install -r requirements.txt
!mkdir ./results
!mkdir ./cache
%cd ./vnncomp_scripts
!chmod u+x run_instance.sh
```

```
Cloning into 'SobolBox'...
remote: Enumerating objects: 1745, done.ote: Counting objects: 100%
(196/196), done.ote: Compressing objects: 100% (168/168), done.ote:
Total 1745 (delta 115), reused 28 (delta 28), pack-reused 1549 (from
4)ent already satisfied: numpy in /usr/local/lib/python3.11/dist-
packages (from -r requirements.txt (line 1)) (1.26.4)
Requirement already satisfied: scipy in
/usr/local/lib/python3.11/dist-packages (from -r requirements.txt
(line 2)) (1.13.1)
Collecting onnxruntime (from -r requirements.txt (line 3))
  Downloading onnxruntime-1.20.1-cp311-cp311-
manylinux_2_27_x86_64.manylinux_2_28_x86_64.whl.metadata (4.5 kB)
Collecting z3-solver (from -r requirements.txt (line 4))
  Downloading z3_solver-4.14.0.0-py3-none-
manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata (602 bytes)
Collecting coloredlogs (from onnxruntime->-r requirements.txt (line
3))
  Downloading coloredlogs-15.0.1-py2.py3-none-any.whl.metadata (12 kB)
Requirement already satisfied: flatbuffers in
/usr/local/lib/python3.11/dist-packages (from onnxruntime->-r
requirements.txt (line 3)) (25.2.10)
Requirement already satisfied: packaging in
/usr/local/lib/python3.11/dist-packages (from onnxruntime->-r
requirements.txt (line 3)) (24.2)
Requirement already satisfied: protobuf in
/usr/local/lib/python3.11/dist-packages (from onnxruntime->-r
requirements.txt (line 3)) (4.25.6)
Requirement already satisfied: sympy in
/usr/local/lib/python3.11/dist-packages (from onnxruntime->-r
requirements.txt (line 3)) (1.13.1)
Collecting humanfriendly>=9.1 (from coloredlogs->onnxruntime->-r
requirements.txt (line 3))
  Downloading humanfriendly-10.0-py2.py3-none-any.whl.metadata (9.2
kB)
Requirement already satisfied: mpmath<1.4,>=1.1.0 in
/usr/local/lib/python3.11/dist-packages (from sympy->onnxruntime->-r
requirements.txt (line 3)) (1.3.0)
Downloading onnxruntime-1.20.1-cp311-cp311-
manylinux_2_27_x86_64.manylinux_2_28_x86_64.whl (13.3 MB)
━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 13.3/13.3 MB 27.6 MB/s eta
0:00:00
anylinux_2_17_x86_64.manylinux2014_x86_64.whl (29.5 MB)
```

```
━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 29.5/29.5 MB 23.0 MB/s eta
0:00:00
━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 46.0/46.0 kB 2.5 MB/s eta
0:00:00
anfriendly-10.0-py2.py3-none-any.whl (86 kB)
━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 86.8/86.8 kB 5.7 MB/s eta
0:00:00
anfriendly, coloredlogs, onnxruntime
Successfully installed coloredlogs-15.0.1 humanfriendly-10.0
onnxruntime-1.20.1 z3-solver-4.14.0.0
/content/SobolBox/vnncomp_scripts
```

!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_1.vnnlib ../results/result_acasxu_1.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_2.vnnlib ../results/result_acasxu_2.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_3.vnnlib ../results/result_acasxu_3.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_4.vnnlib ../results/result_acasxu_4.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_5.vnnlib ../results/result_acasxu_5.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_6.vnnlib ../results/result_acasxu_6.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_7.vnnlib ../results/result_acasxu_7.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..

```
/examples/acasxu/vnnlib/prop_8.vnnlib ../results/result_acasxu_8.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_9.vnnlib ../results/result_acasxu_9.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_10.vnnlib ../results/result_acasxu_10.txt
3600

Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_1.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_1.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m1.839s
user  0m1.230s
sys   0m0.224s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_2.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_2.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Extracted output bounds from cache.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real  0m8.301s
user  0m4.621s
sys   0m0.274s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
```

'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_3.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_3.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real 0m4.810s
user 0m4.176s
sys   0m0.267s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_4.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_4.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real 0m3.772s
user 0m3.590s
sys   0m0.247s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_5.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_5.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.

```
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real  0m3.068s
user  0m3.017s
sys   0m0.234s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_6.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_6.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Disjunction detected in property specification, quitting gracefully.

real  0m1.243s
user  0m0.977s
sys   0m0.204s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_7.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_7.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m1.395s
user  0m1.134s
sys   0m0.196s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_8.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_8.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
```

```
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m1.072s
user  0m0.998s
sys   0m0.172s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_9.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_9.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.946s
user  0m0.929s
sys   0m0.238s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_1_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_10.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_10.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.935s
```

```
user  0m0.945s
sys   0m0.212s

!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_1.vnnlib ../results/result_acasxu_1.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_2.vnnlib ../results/result_acasxu_2.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_3.vnnlib ../results/result_acasxu_3.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_4.vnnlib ../results/result_acasxu_4.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_5.vnnlib ../results/result_acasxu_5.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_6.vnnlib ../results/result_acasxu_6.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_7.vnnlib ../results/result_acasxu_7.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_8.vnnlib ../results/result_acasxu_8.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_9.vnnlib ../results/result_acasxu_9.txt
3600
!time ./run_instance.sh v1
acasxu ..
```

```
/examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_10.vnnlib ../results/result_acasxu_10.txt
3600

Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_1.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_1.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m1.155s
user  0m1.110s
sys   0m0.223s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_2.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_2.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Extracted output bounds from cache.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.871s
user  0m0.879s
sys   0m0.217s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_3.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_3.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
```

```
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real  0m2.772s
user  0m2.757s
sys   0m0.219s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_4.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_4.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real  0m5.989s
user  0m4.098s
sys   0m0.264s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_5.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_5.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m1.767s
user  0m0.984s
sys   0m0.185s
```

```
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_6.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_6.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Disjunction detected in property specification, quitting gracefully.

real  0m0.829s
user  0m0.839s
sys   0m0.203s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_7.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_7.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.945s
user  0m0.936s
sys   0m0.232s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_8.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_8.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.920s
```

```
user   0m0.914s
sys    0m0.226s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_9.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_9.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real   0m0.909s
user   0m0.900s
sys    0m0.228s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_2_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_10.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_10.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real   0m0.957s
user   0m0.962s
sys    0m0.209s

!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_1.vnnlib ../results/result_acasxu_1.txt
3600
!time ./run_instance.sh v1
acasxu ..
```

```
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_2.vnnlib ../results/result_acasxu_2.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_3.vnnlib ../results/result_acasxu_3.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_4.vnnlib ../results/result_acasxu_4.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_5.vnnlib ../results/result_acasxu_5.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_6.vnnlib ../results/result_acasxu_6.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_7.vnnlib ../results/result_acasxu_7.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_8.vnnlib ../results/result_acasxu_8.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_9.vnnlib ../results/result_acasxu_9.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_10.vnnlib ../results/result_acasxu_10.txt
3600

Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_1.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_1.txt',
given timeout in seconds is '3600'.
```

```
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.946s
user  0m0.921s
sys   0m0.211s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_2.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_2.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Extracted output bounds from cache.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.854s
user  0m0.839s
sys   0m0.217s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_3.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_3.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.856s
user  0m0.877s
sys   0m0.200s
```

```
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_4.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_4.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.878s
user  0m0.874s
sys   0m0.213s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_5.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_5.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real  0m4.368s
user  0m4.102s
sys   0m0.194s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_6.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_6.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Disjunction detected in property specification, quitting gracefully.

real  0m0.786s
```

```
user  0m0.804s
sys   0m0.204s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_7.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_7.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.967s
user  0m0.921s
sys   0m0.225s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_8.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_8.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.958s
user  0m0.932s
sys   0m0.216s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_9.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_9.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
```

```
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.884s
user  0m0.882s
sys   0m0.222s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_3_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_10.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_10.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.954s
user  0m0.911s
sys   0m0.225s

!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_1.vnnlib ../results/result_acasxu_1.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_2.vnnlib ../results/result_acasxu_2.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_3.vnnlib ../results/result_acasxu_3.txt
3600
!time ./run_instance.sh v1
```

```
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_4.vnnlib ../results/result_acasxu_4.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_5.vnnlib ../results/result_acasxu_5.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_6.vnnlib ../results/result_acasxu_6.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_7.vnnlib ../results/result_acasxu_7.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_8.vnnlib ../results/result_acasxu_8.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_9.vnnlib ../results/result_acasxu_9.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_10.vnnlib ../results/result_acasxu_10.txt
3600

Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_1.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_1.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
```

```
No safety violations found.

real  0m0.948s
user  0m0.914s
sys   0m0.222s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_2.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_2.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Extracted output bounds from cache.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.823s
user  0m0.812s
sys   0m0.223s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_3.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_3.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.936s
user  0m0.937s
sys   0m0.215s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_4.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_4.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
```

```
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real  0m3.829s
user  0m3.704s
sys   0m0.236s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_5.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_5.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m1.247s
user  0m1.039s
sys   0m0.185s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_6.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_6.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Disjunction detected in property specification, quitting gracefully.

real  0m0.812s
user  0m0.824s
sys   0m0.199s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_7.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_7.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
```

```
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.934s
user  0m0.914s
sys   0m0.224s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_8.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_8.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.913s
user  0m0.894s
sys   0m0.209s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_9.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_9.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.
```

```
real  0m3.031s
user  0m2.999s
sys   0m0.222s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_4_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_10.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_10.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.881s
user  0m0.877s
sys   0m0.221s

!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_1.vnnlib ../results/result_acasxu_1.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_2.vnnlib ../results/result_acasxu_2.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_3.vnnlib ../results/result_acasxu_3.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_4.vnnlib ../results/result_acasxu_4.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_5.vnnlib ../results/result_acasxu_5.txt
3600
!time ./run_instance.sh v1
```

```
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_6.vnnlib ../results/result_acasxu_6.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_7.vnnlib ../results/result_acasxu_7.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_8.vnnlib ../results/result_acasxu_8.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_9.vnnlib ../results/result_acasxu_9.txt
3600
!time ./run_instance.sh v1
acasxu ..
/examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx ..
/examples/acasxu/vnnlib/prop_10.vnnlib ../results/result_acasxu_10.txt
3600

Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_1.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_1.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.881s
user  0m0.862s
sys   0m0.217s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_2.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_2.txt',
```

given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Extracted output bounds from cache.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real 0m0.833s
user 0m0.840s
sys   0m0.210s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_3.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_3.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real 0m4.701s
user 0m4.134s
sys   0m0.269s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_4.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_4.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real 0m0.875s
user 0m0.895s

```
sys    0m0.210s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_5.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_5.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Inconclusive analysis.

real   0m2.969s
user   0m2.953s
sys    0m0.220s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_6.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_6.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Disjunction detected in property specification, quitting gracefully.

real   0m0.787s
user   0m0.796s
sys    0m0.216s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_7.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_7.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.
```

```
real  0m0.943s
user  0m0.940s
sys   0m0.217s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_8.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_8.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.907s
user  0m0.901s
sys   0m0.216s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_9.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_9.txt',
given timeout in seconds is '3600'.
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
Safety violation detected in optima.

real  0m0.925s
user  0m0.899s
sys   0m0.218s
Running SobolBox on benchmark instance in category 'acasxu' with
neural network
'../examples/acasxu/onnx/ACASXU_run2a_5_1_batch_2000.onnx' and
property file '../examples/acasxu/vnnlib/prop_10.vnnlib'.
Storing result in plaintext file '../results/result_acasxu_10.txt',
given timeout in seconds is '3600'.
```

```
Extracting input bounds.
Input bounds extracted.
Extracting output bounds.
Computing Sobol sequence samples.
Calculating Sobol sequence for 2048 samples.
Retrieved Sobol sequence from cache.
Refining the Sobol sequence samples.
Output bounds extracted.
Checking for violations in Sobol sequence samples.
No safety violations found.

real  0m0.953s
user  0m0.919s
sys   0m0.215s
```