

GOBLITCH

Combining Abstract Interpretation with Symbolic Execution via Witnesses

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GOBLINT + WITCH

GOBLINT + WITCH

=

GOBLITCH



GOBLITCH: approach

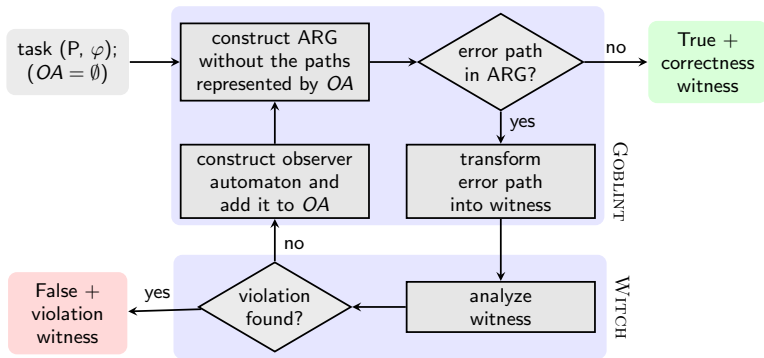


Figure: Refinement loop of GOBLITCH.

Results

Table: Solved tasks comparison between GOBLINT and $\hat{\text{GOBLITCH}}$.

(a) *C.ReachSafety*

GOBLINT	$\hat{\text{GOBLITCH}}$			
	True	False	Unsolved	All
True	674	0	163	837
Unsolved	278	609	12,651	13,538
All	952	609	12,814	14,375

(b) *C.unreach-call.SoftwareSystems-**

GOBLINT	$\hat{\text{GOBLITCH}}$			
	True	False	Unsolved	All
True	1,312	0	283	1,595
Unsolved	66	155	1,797	2,018
All	1,378	155	2,080	3,613

Results

Table: Solved tasks comparison between GOBLINT and  GOBLITCH.

(a) *C.ReachSafety*

GOBLINT	 GOBLITCH			
	True	False	Unsolved	All
True	674	0	163	837
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C.ReachSafety score:

 GOBLITCH 6552

GOBLINT 4664

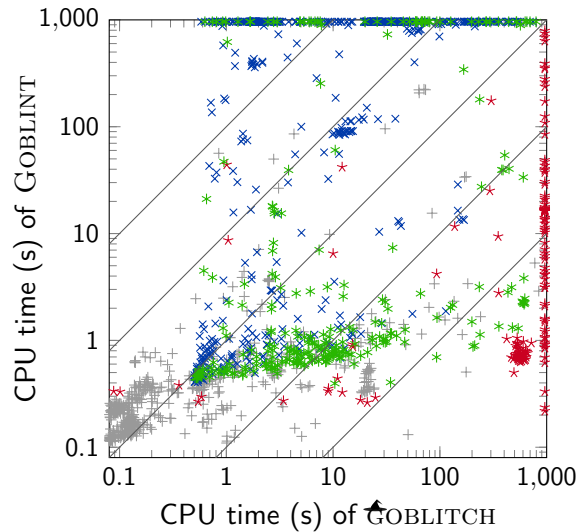
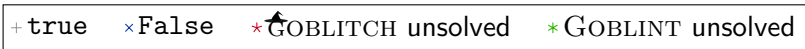
(b) *C.unreach-call.SoftwareSystems-**

GOBLINT	 GOBLITCH			
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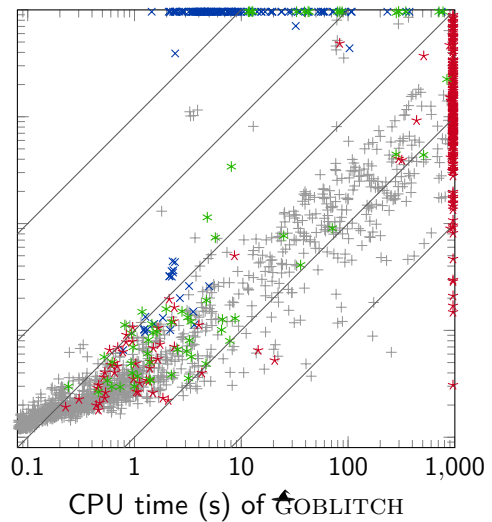
C.SoftwareSystems score:

 GOBLITCH 611

GOBLINT 457



(a) *C.ReachSafety*



(b) *C.unreach-call.SoftwareSystems-**

Further reading

-  Holter, K., Ayaziová, P., Saan, S., Strejček, J., Vojdani, V.
GOBLITCH: Combining Abstract Interpretation with Symbolic Execution via
Witnesses
In: TACAS 2026. Springer (2026).