Running Time Comparison Visualisation

Legend: CP3.s (blue), Comp3.s (green)

The lower, the better

Running time

Running Time Unit: ns	CP3.s	Comp3.s	Speed Up from Baseline (CP3.s)	Speed Up from Baseline (Comp3.s)
Baseline (From CP2)	5,300,135	4,458,455	1.00	1.00
L2	1,610,615	1,474,505	3.29	3.02
L2 + EWB	1,398,475	1,451,745	3.79	3.07
L2 + EWB + Prefetch	1,751,045	1,324,575	3.03	3.37
L2 + EWB + Prefetch + Optimised L1	1,058,305	676,295	5.00	6.59
L2 + EWB + Prefetch + Optimised L1 + Tournament	864,805	617,365	6.13	7.22

1

Static Not Taken Predictor

Tournament Predictor w/ Index Specified Below

27%

73%

10%

90%

- 🔵 # of misprediction
- 🟢 # of correct prediction
- 🔵 # of misprediction
- 🟢 # of correct prediction
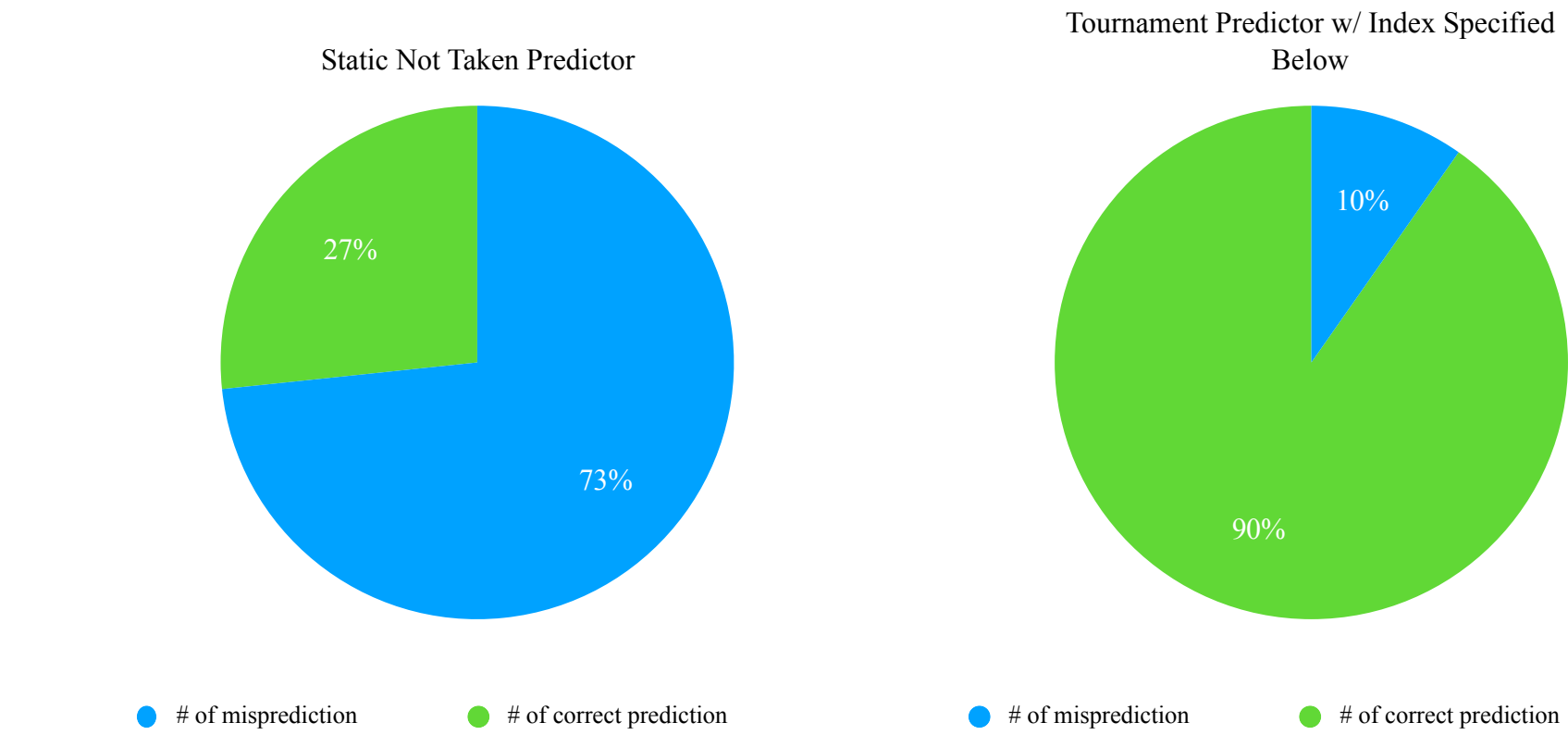
Prediction Performance

Testcase: CP3.s	# of Branches / Jumps	# of misprediction	# of correct prediction	Prediction Rate
Static Not Taken	12,774	9,369	3,405	0.26
tournament: (s_index 10, previous_branches 2)	12,774	1,243	11,531	0.90

1

Static Not Taken Predictor

Tournament Predictor w/ Index Specified Below

Static Not Taken Predictor

14%

86%

- ● # of misprediction
- ● # of correct prediction

Tournament Predictor w/ Index Specified Below

12%

88%

- ● # of misprediction
- ● # of correct prediction
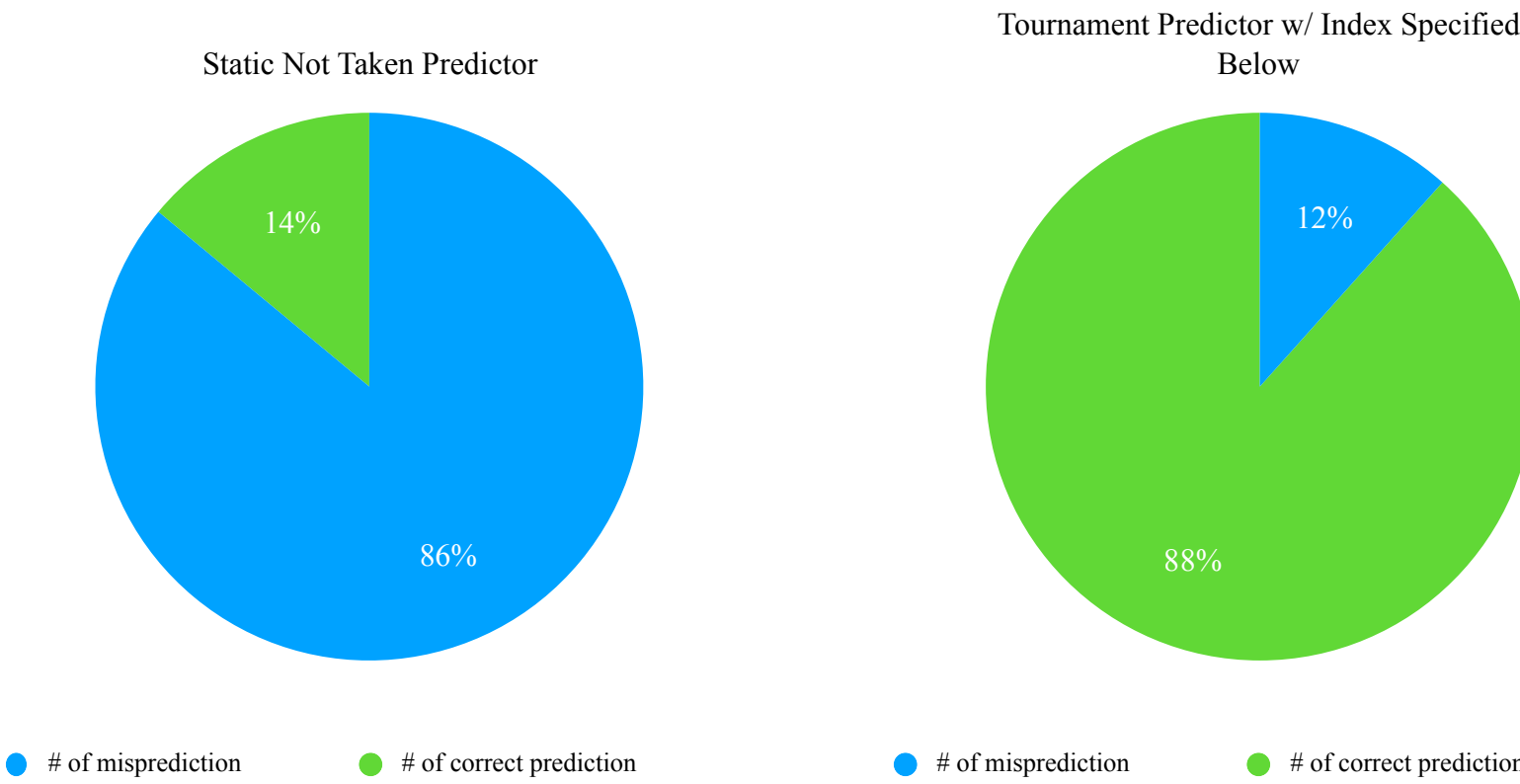
Prediction Performance

Testcase: comp3.s	# of Branches / Jumps	# of misprediction	# of correct prediction	Prediction Rate
Static Not Taken	4,392	3,778	614	0.14
tournament: (s_index 10, previous_branches 2)	4,392	510	3,882	0.88